

Energy Development and Transmission Interim Committee

Justin J. Kringstad

Geological Engineer

Director

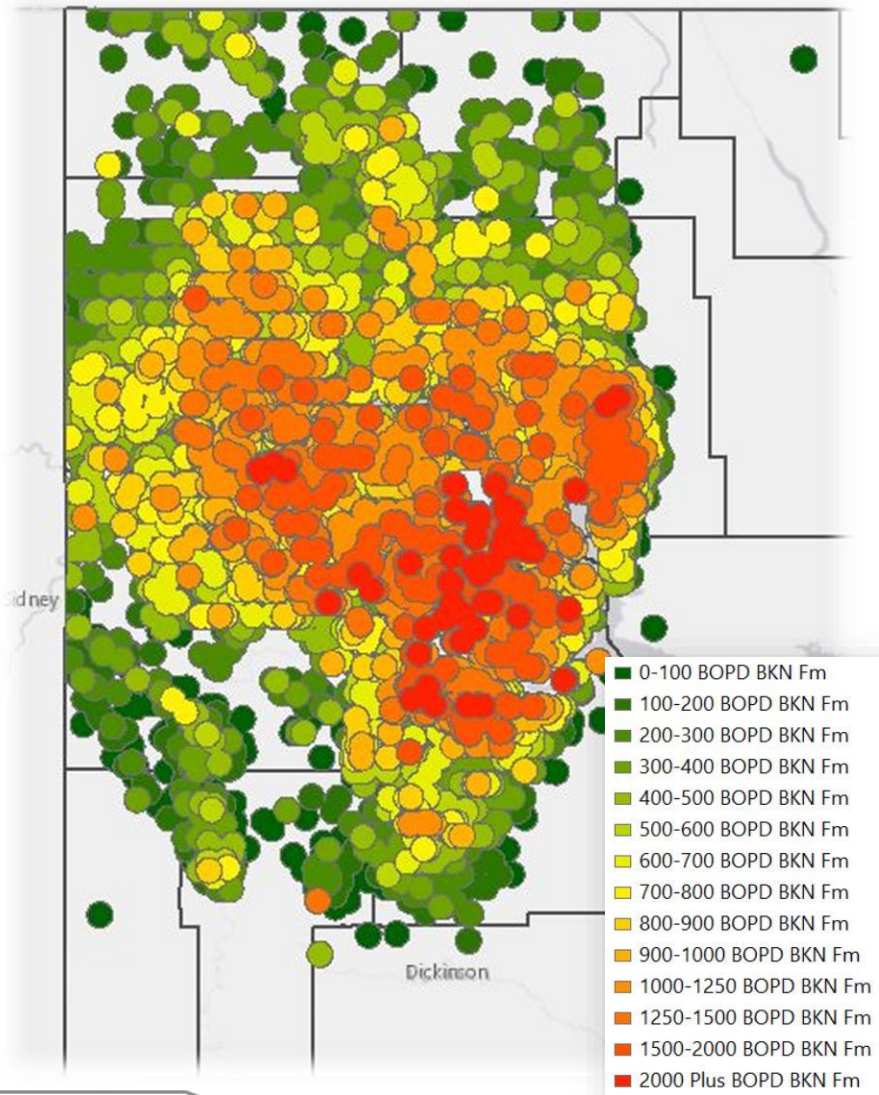
North Dakota Pipeline Authority

March 1, 2022

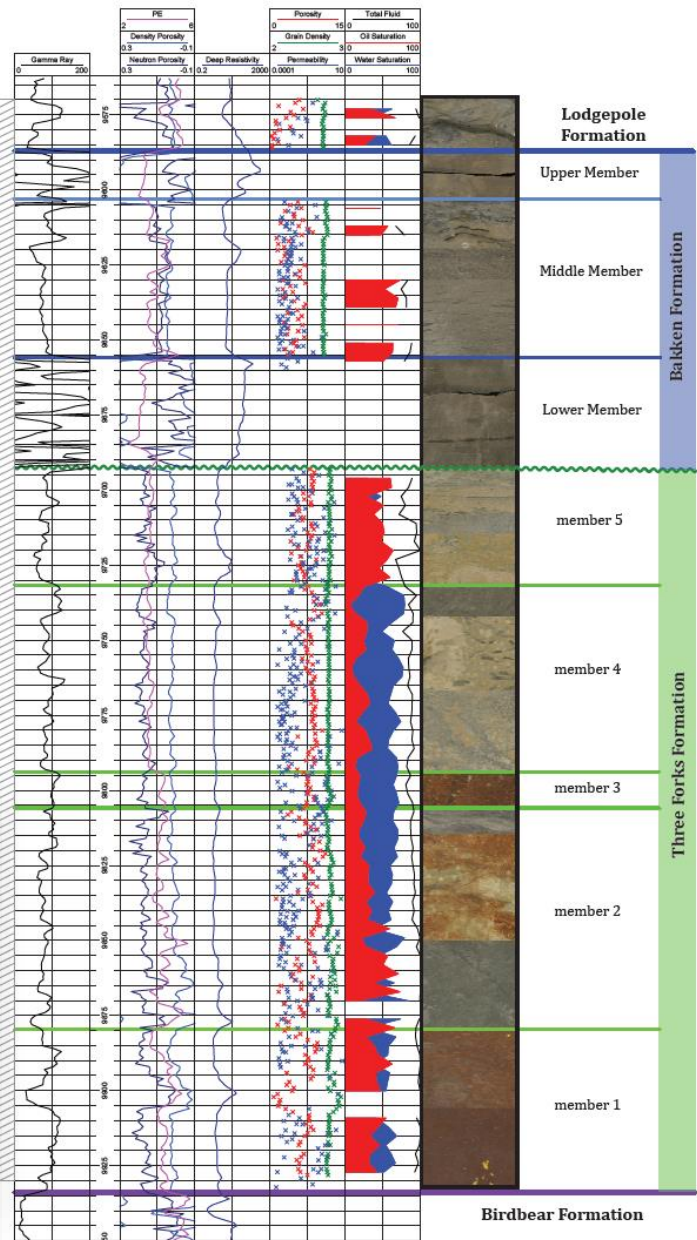
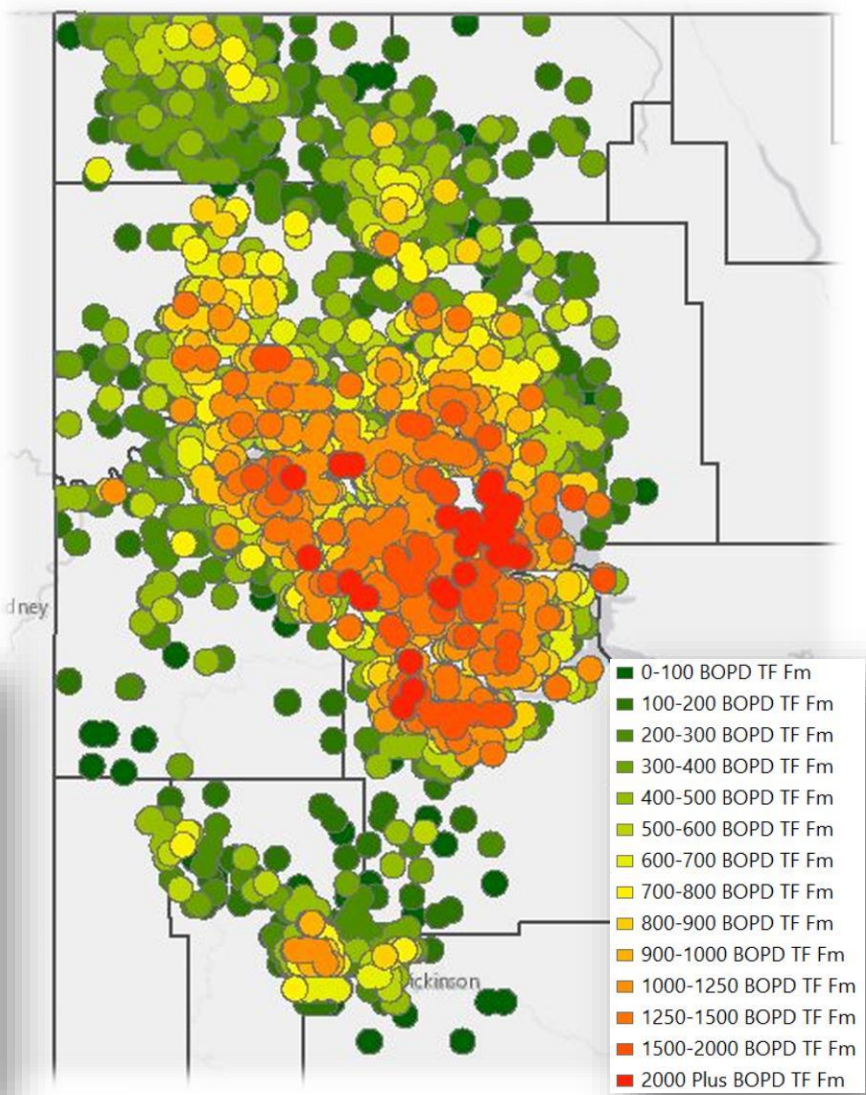


Bakken & Three Forks Formations – Feb. 2022

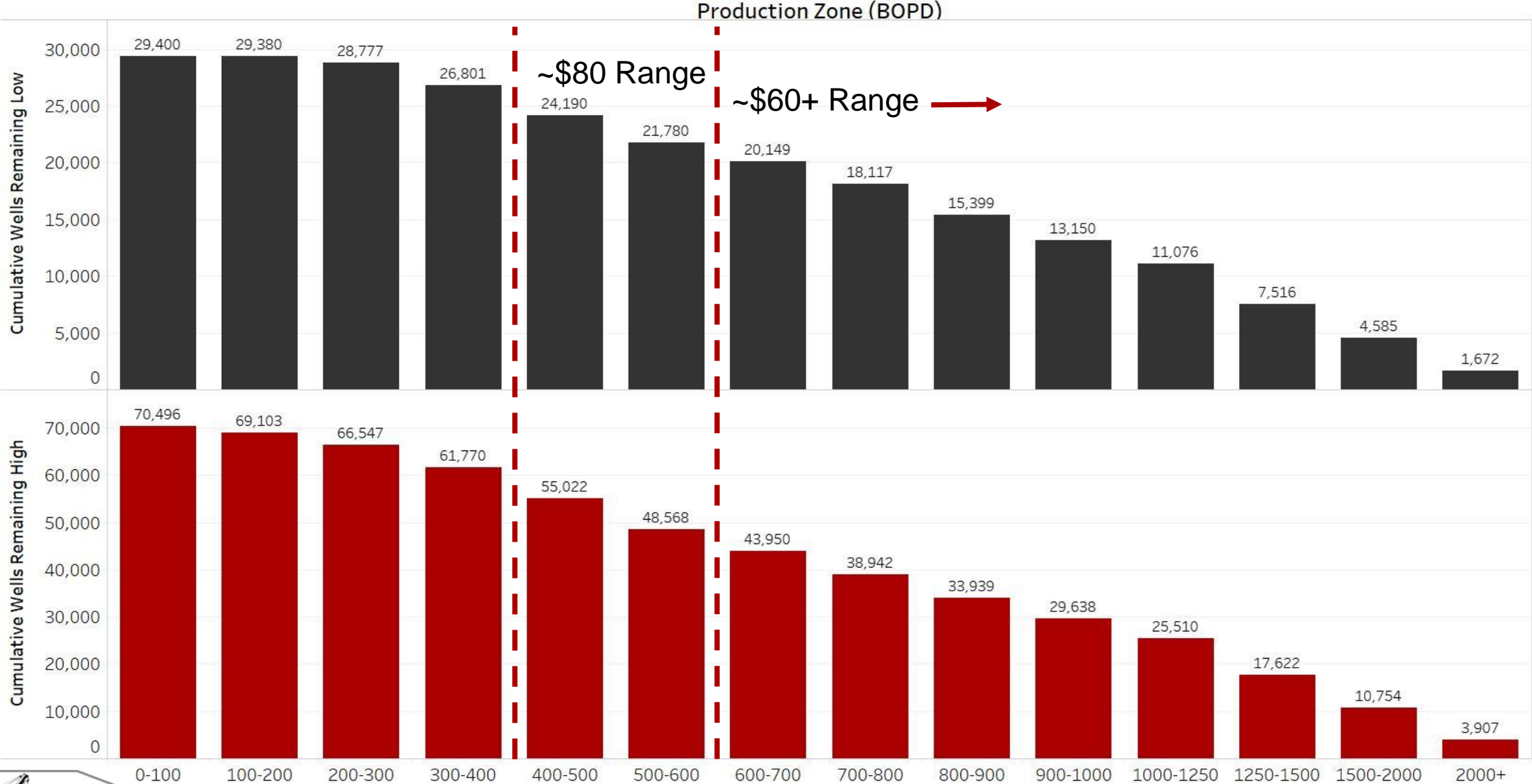
Bakken Formation



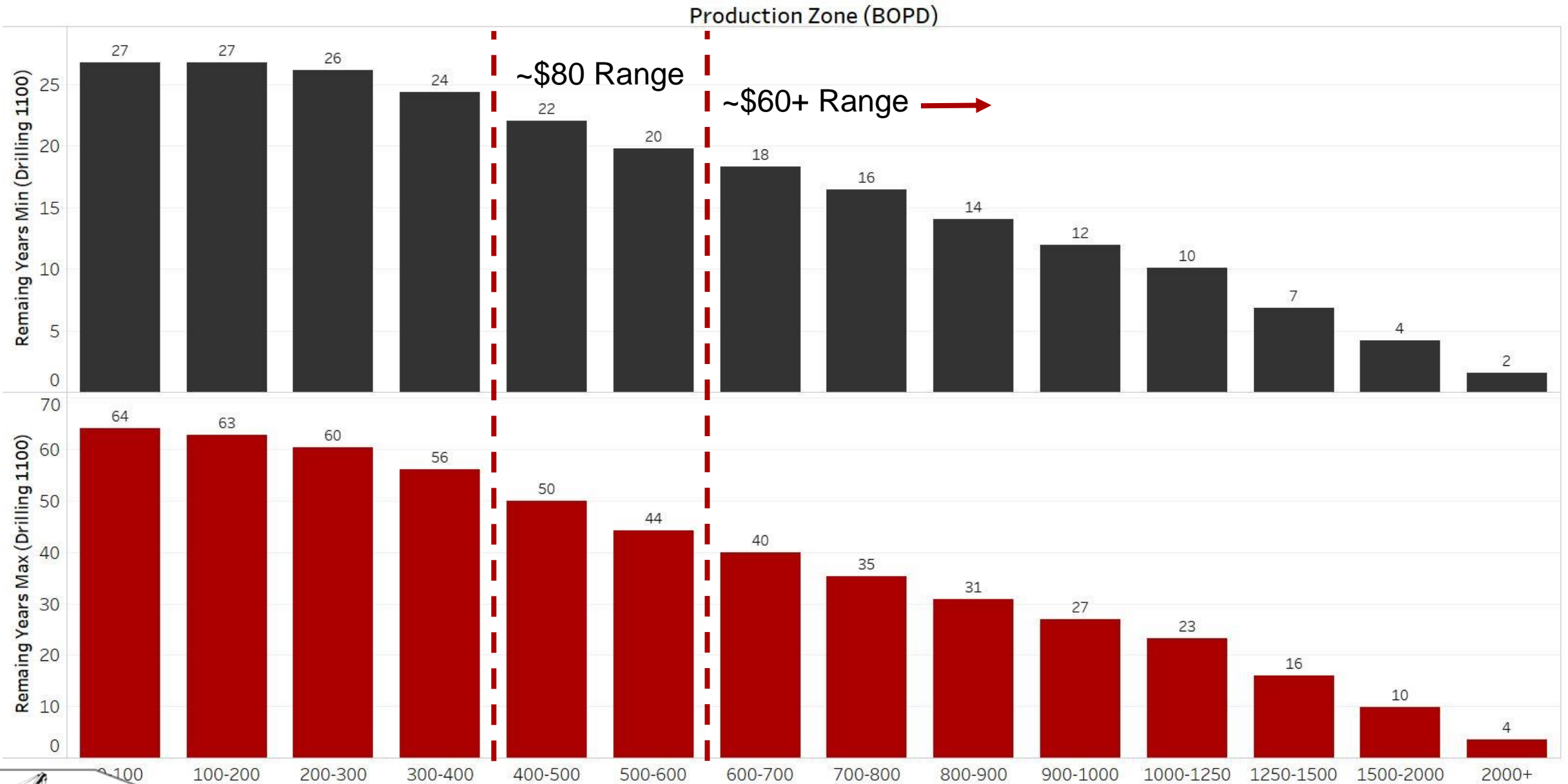
Three Forks Formation



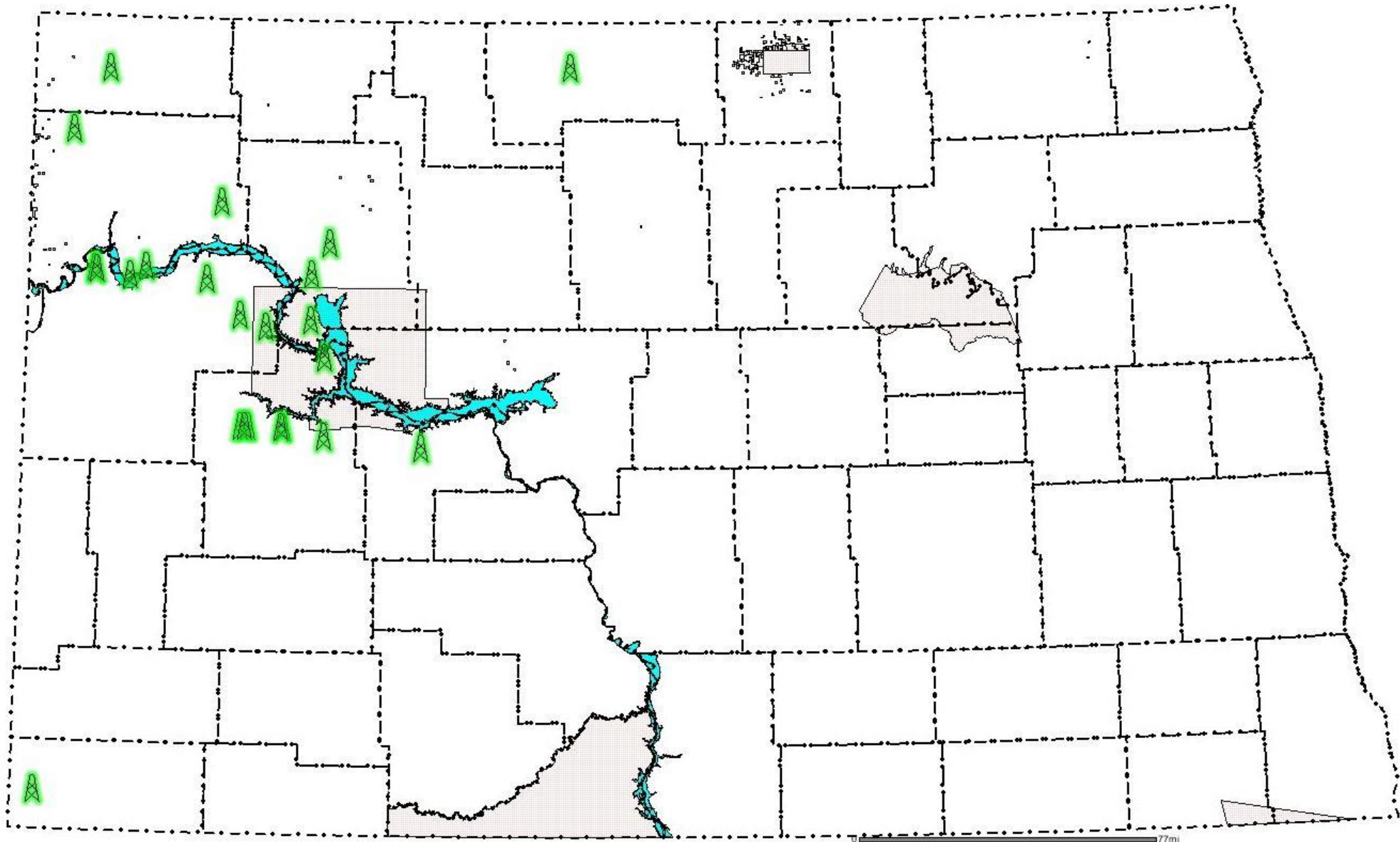
Remaining Drilling Inventory (Bakken/Three Forks)



Years of Inventory at 1,100 Wells/Year



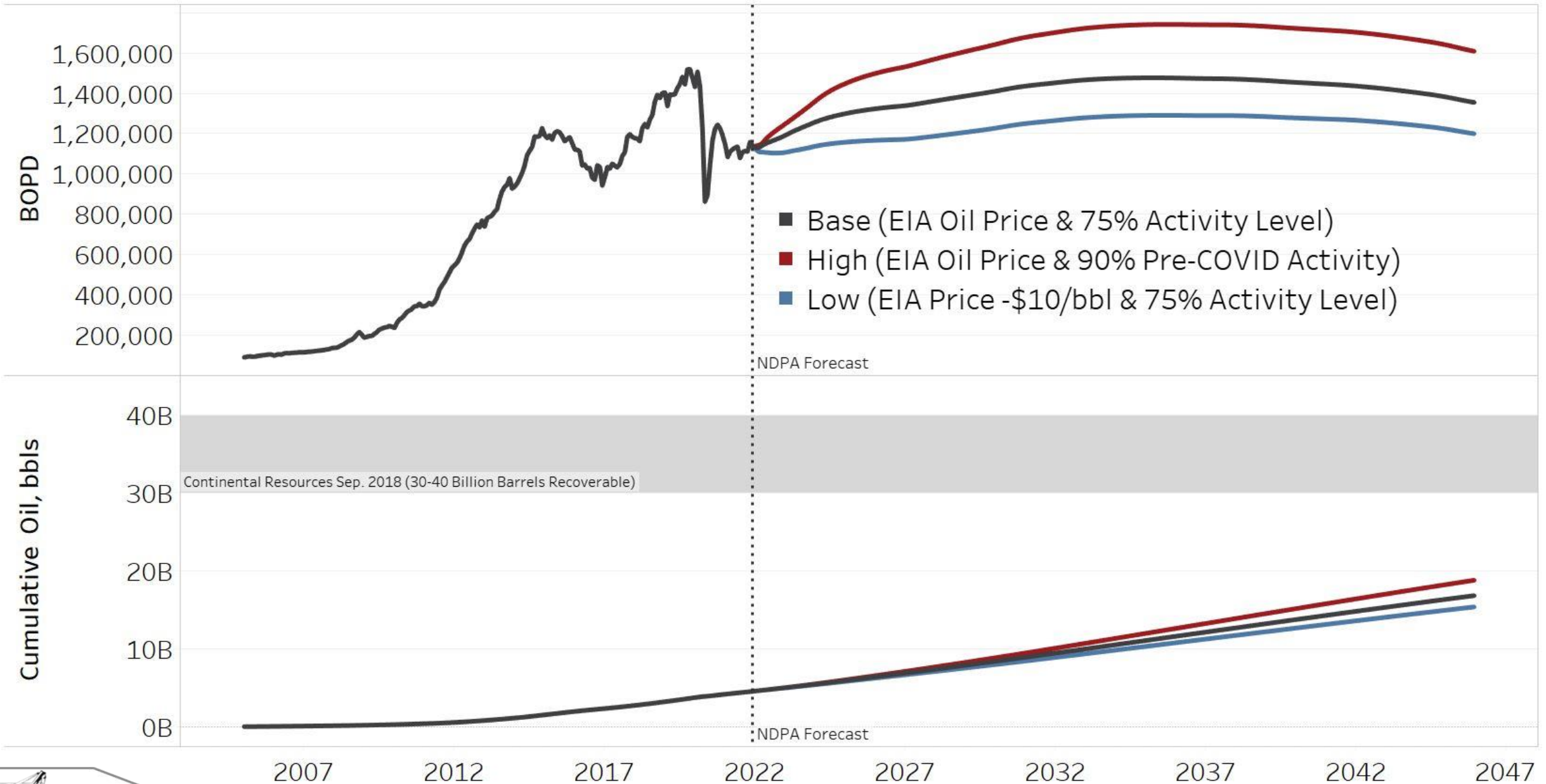
North Dakota Drilling – 33 Active Rigs (Feb. 24, 2022)



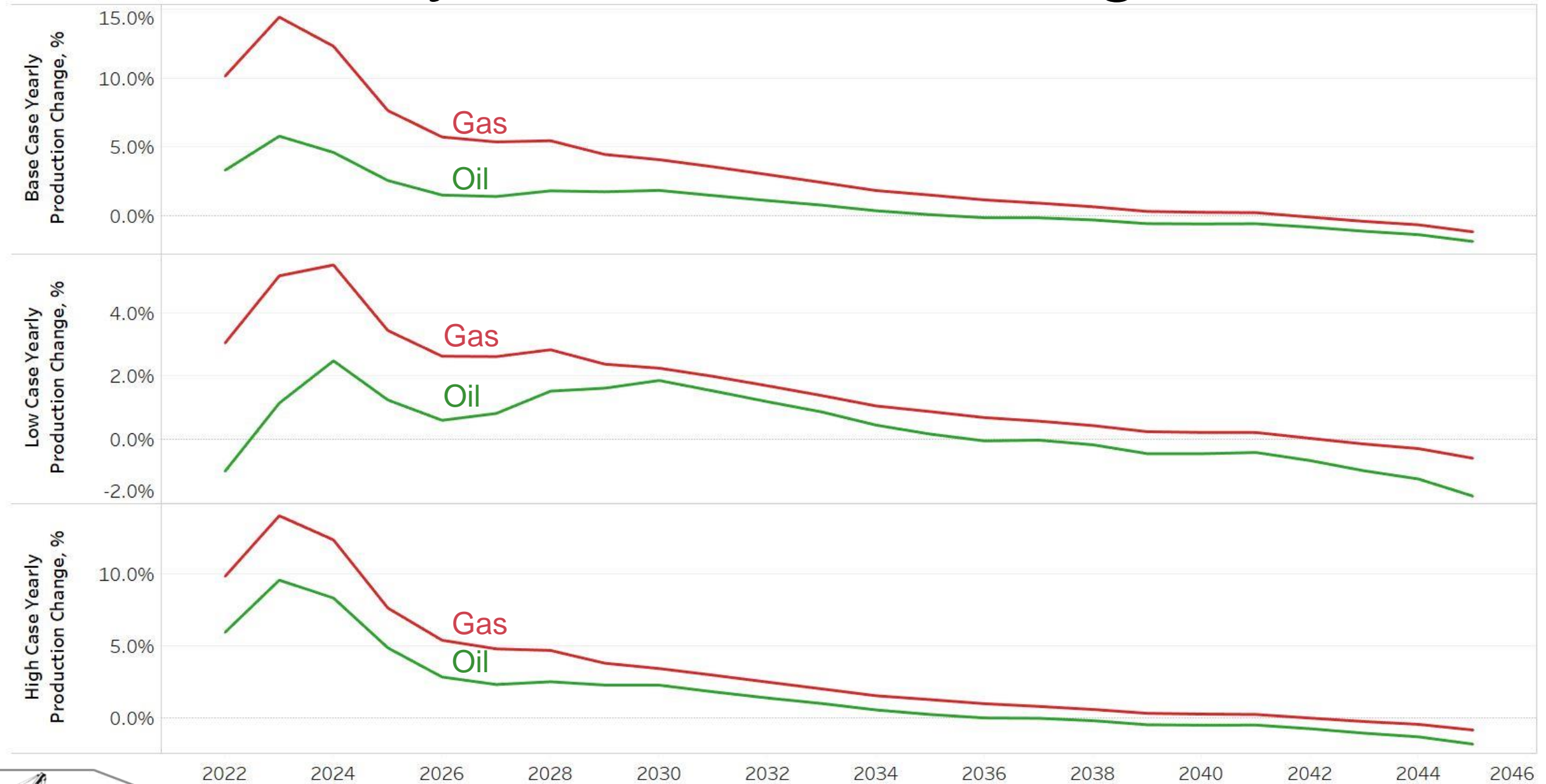
Drilling Rig Breakdown



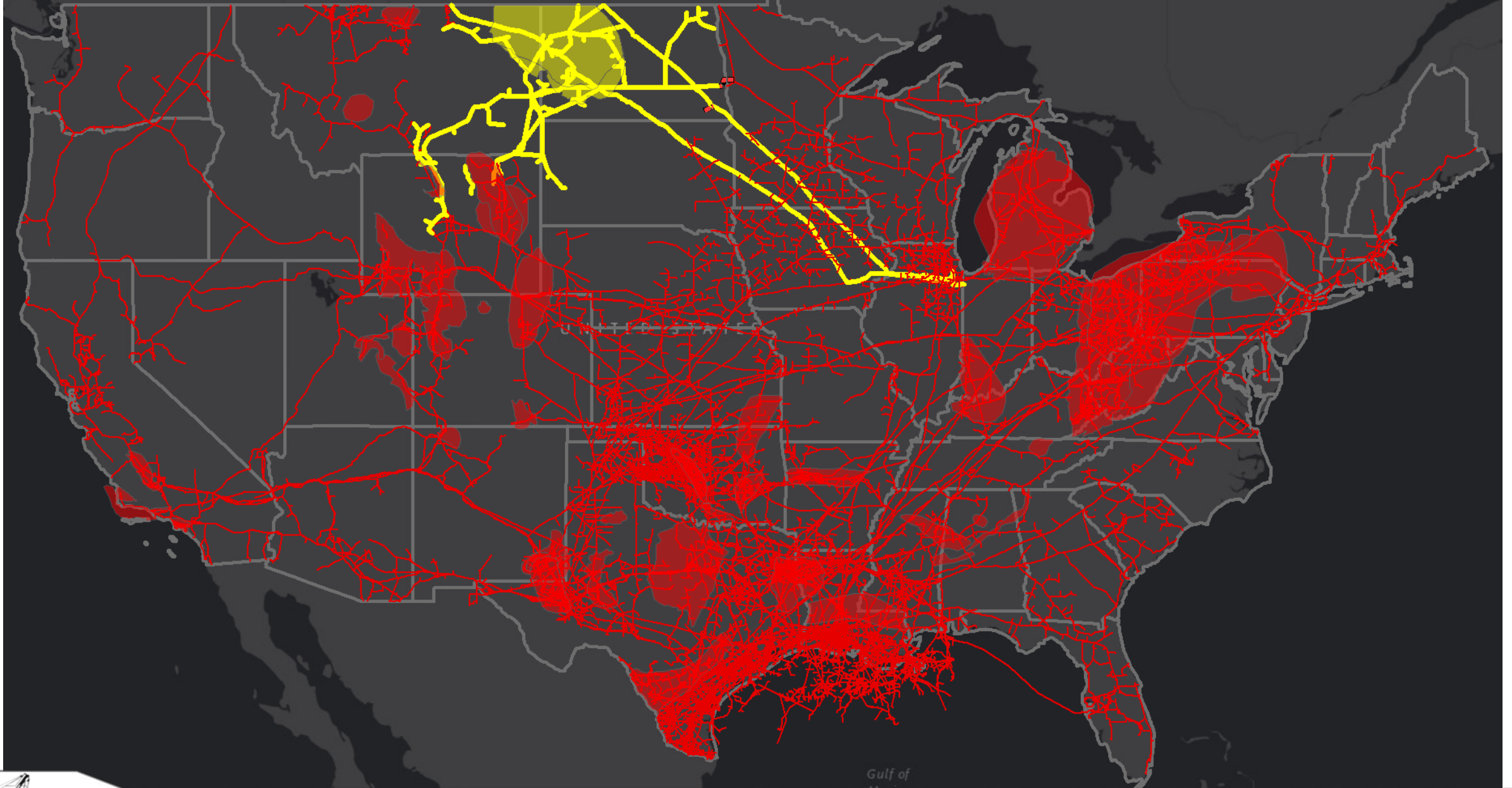
ND Oil Production: EIA Price Deck



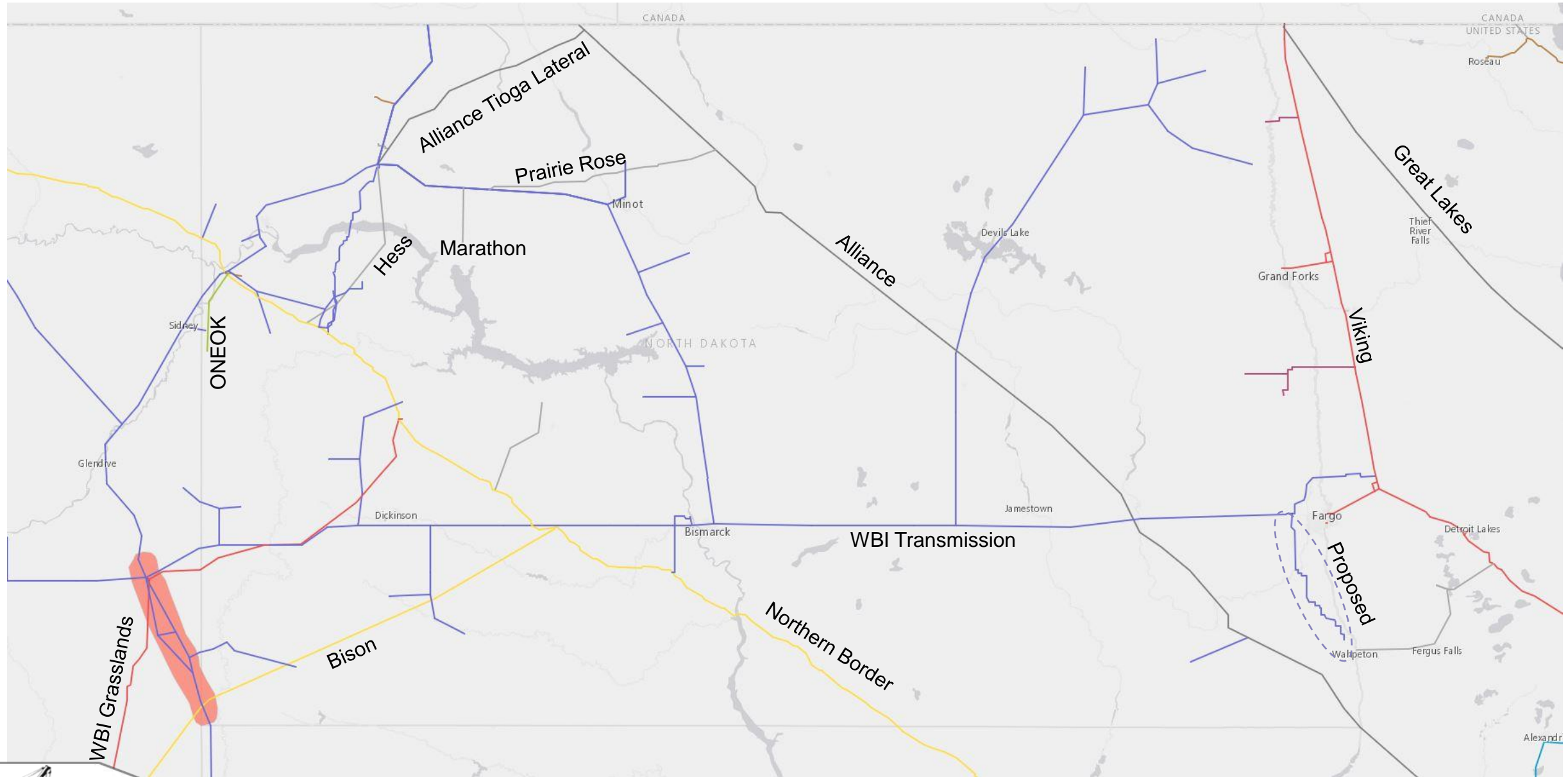
Yearly Production Change, %



Bakken Natural Gas Infrastructure



Major Residue Gas Pipeline Infrastructure



Natural Gas Update



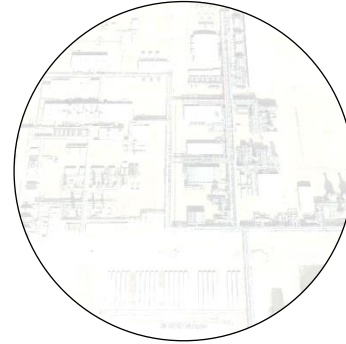
Production

- Technology
- Markets



Gathering

- Capacity
- Connections



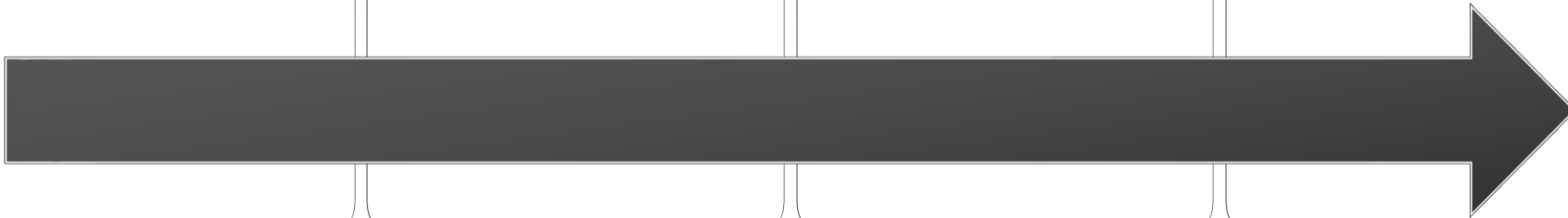
Processing

- Capacity
- Location

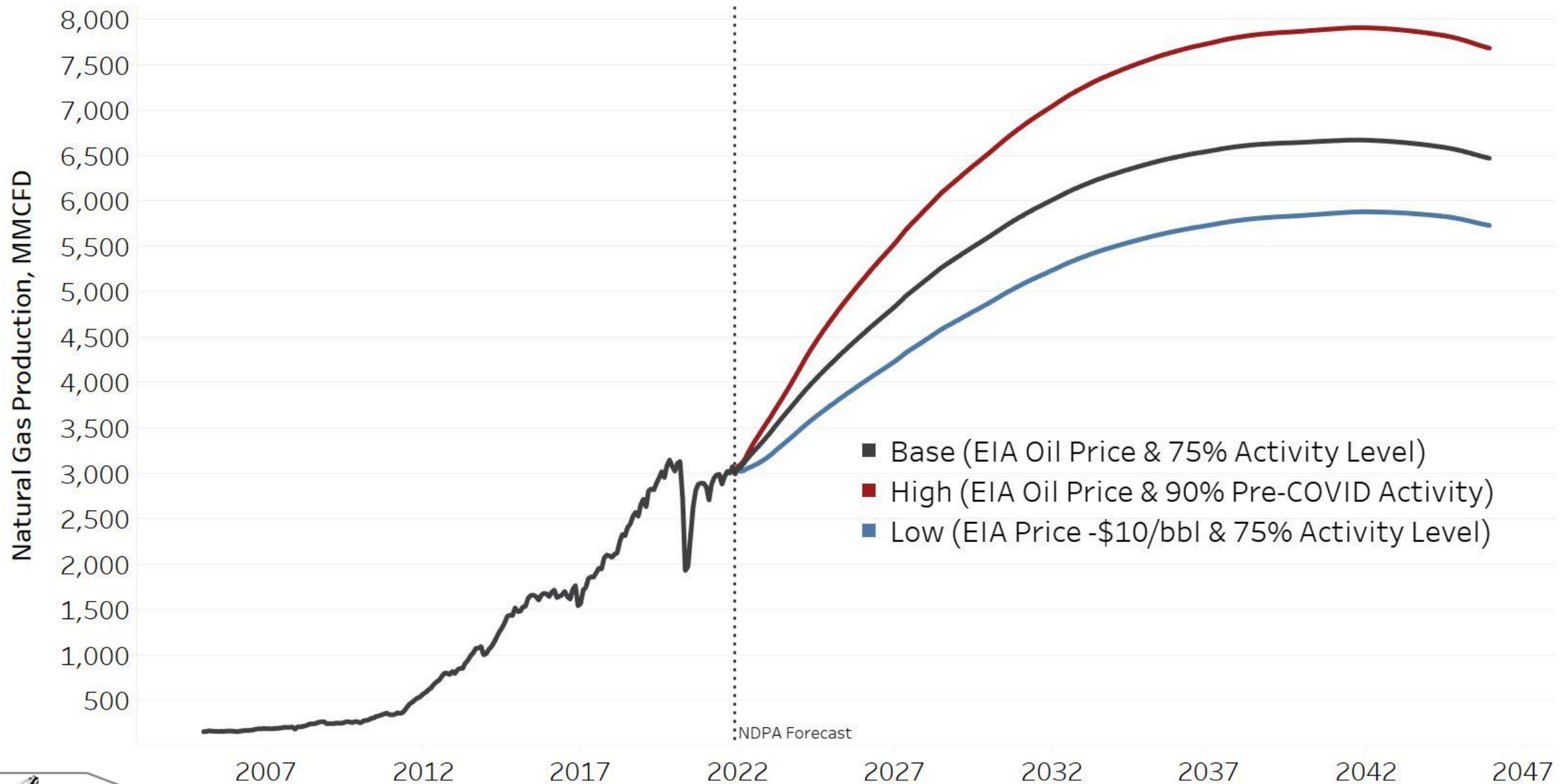


Transmission

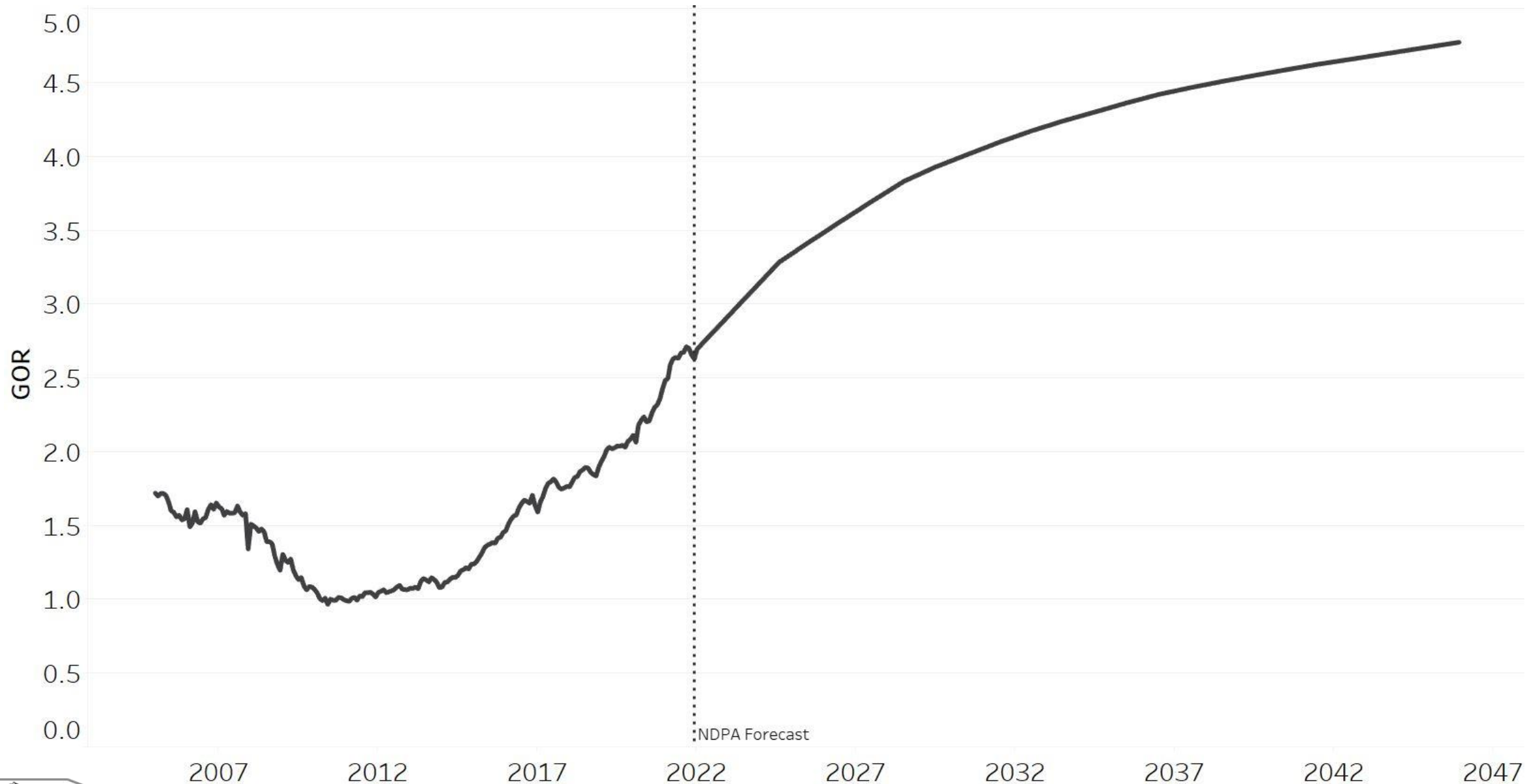
- Dry Gas
- Natural Gas Liquids



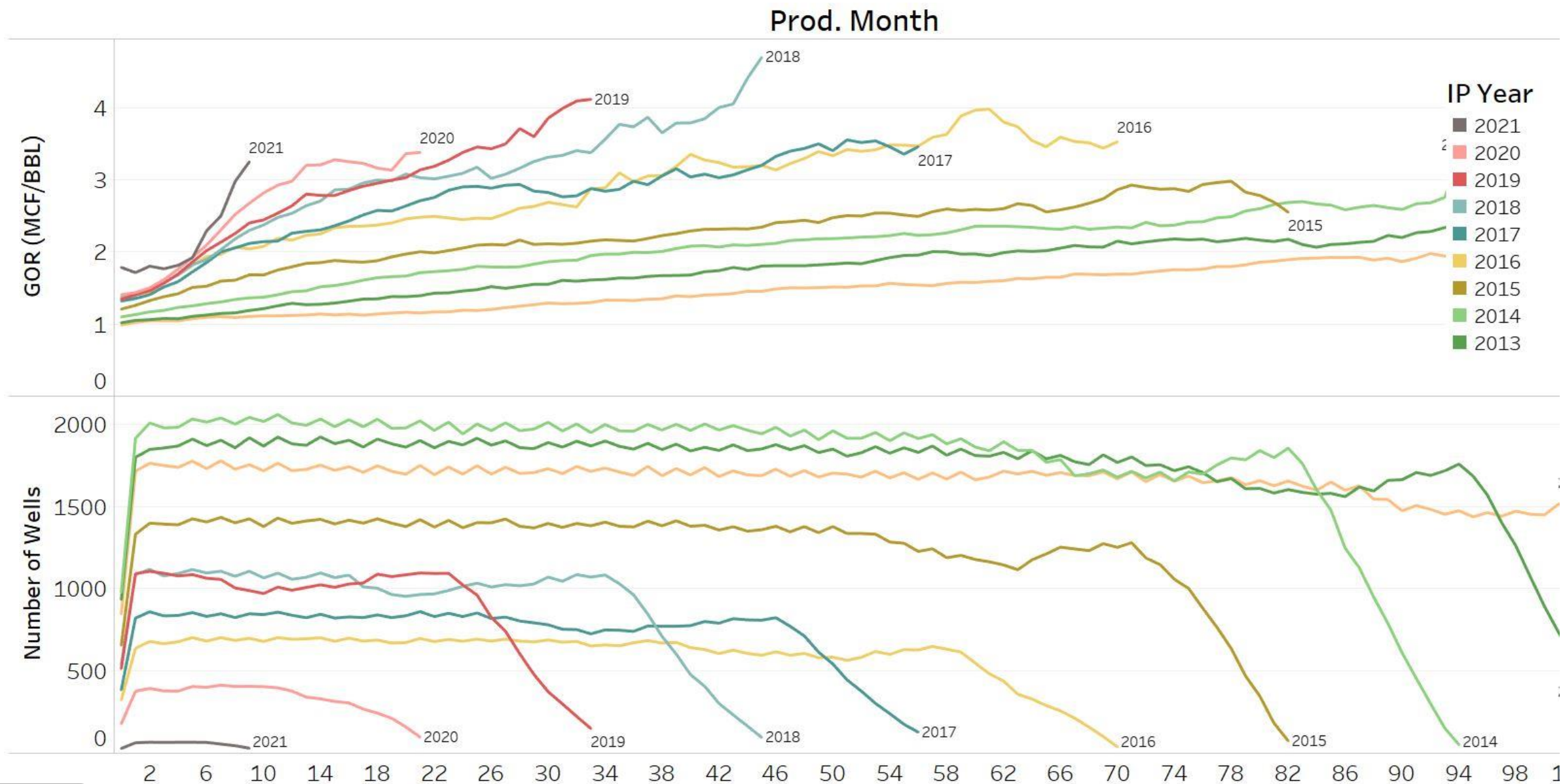
ND Gas Production: EIA Price Deck



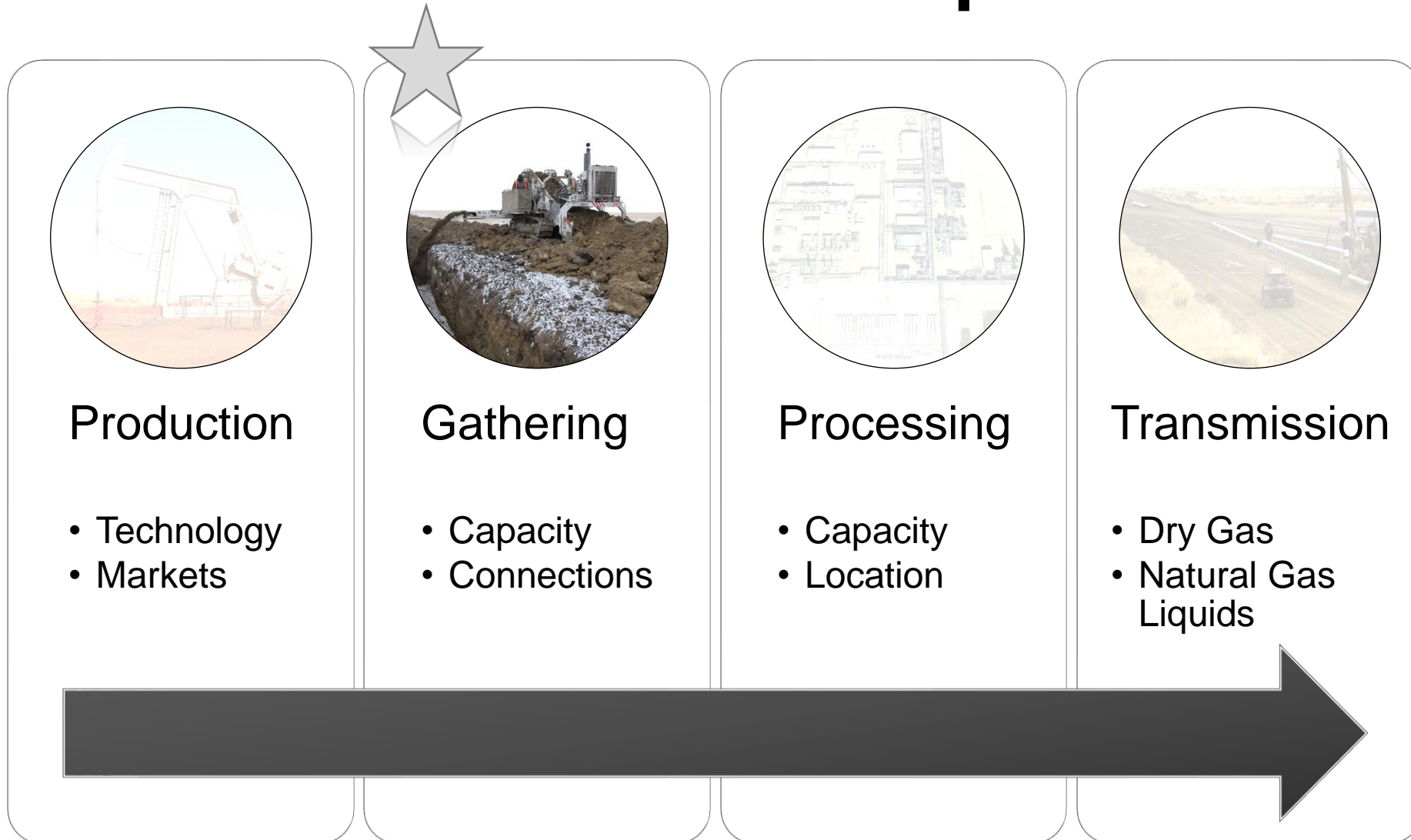
ND Gas Production: GOR Assumption



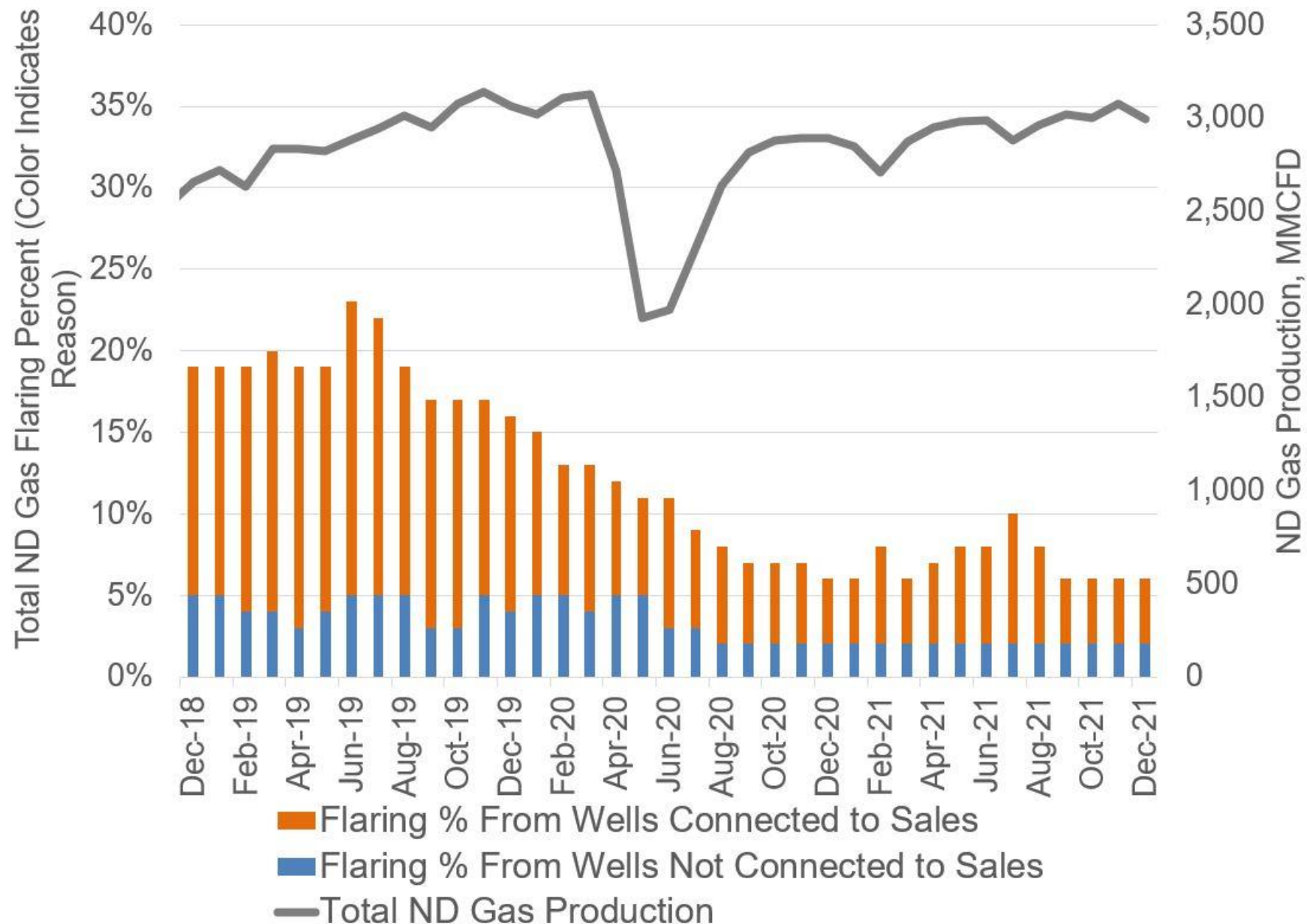
Statewide Bakken Gas/Oil Ratios



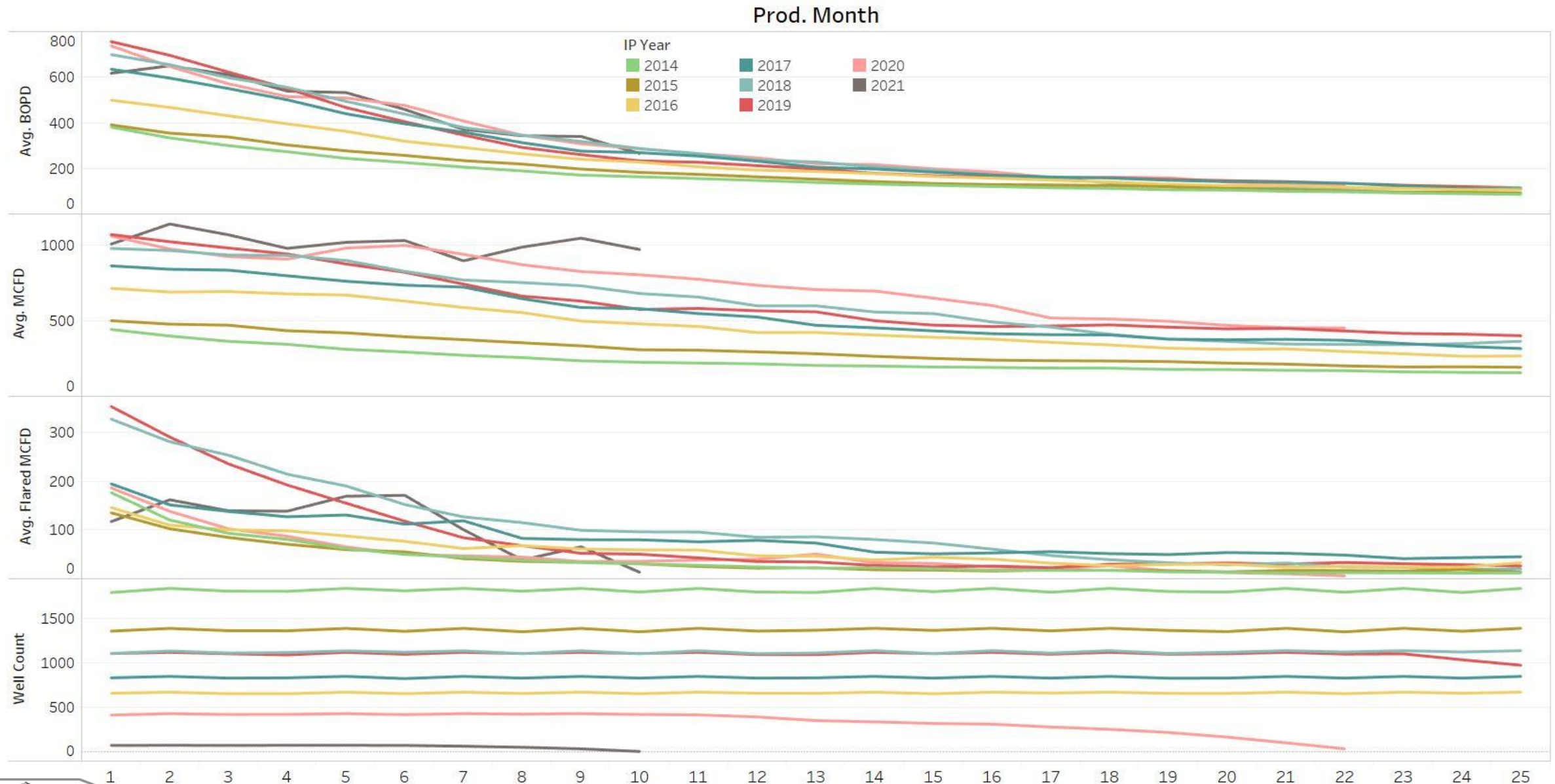
Natural Gas Update



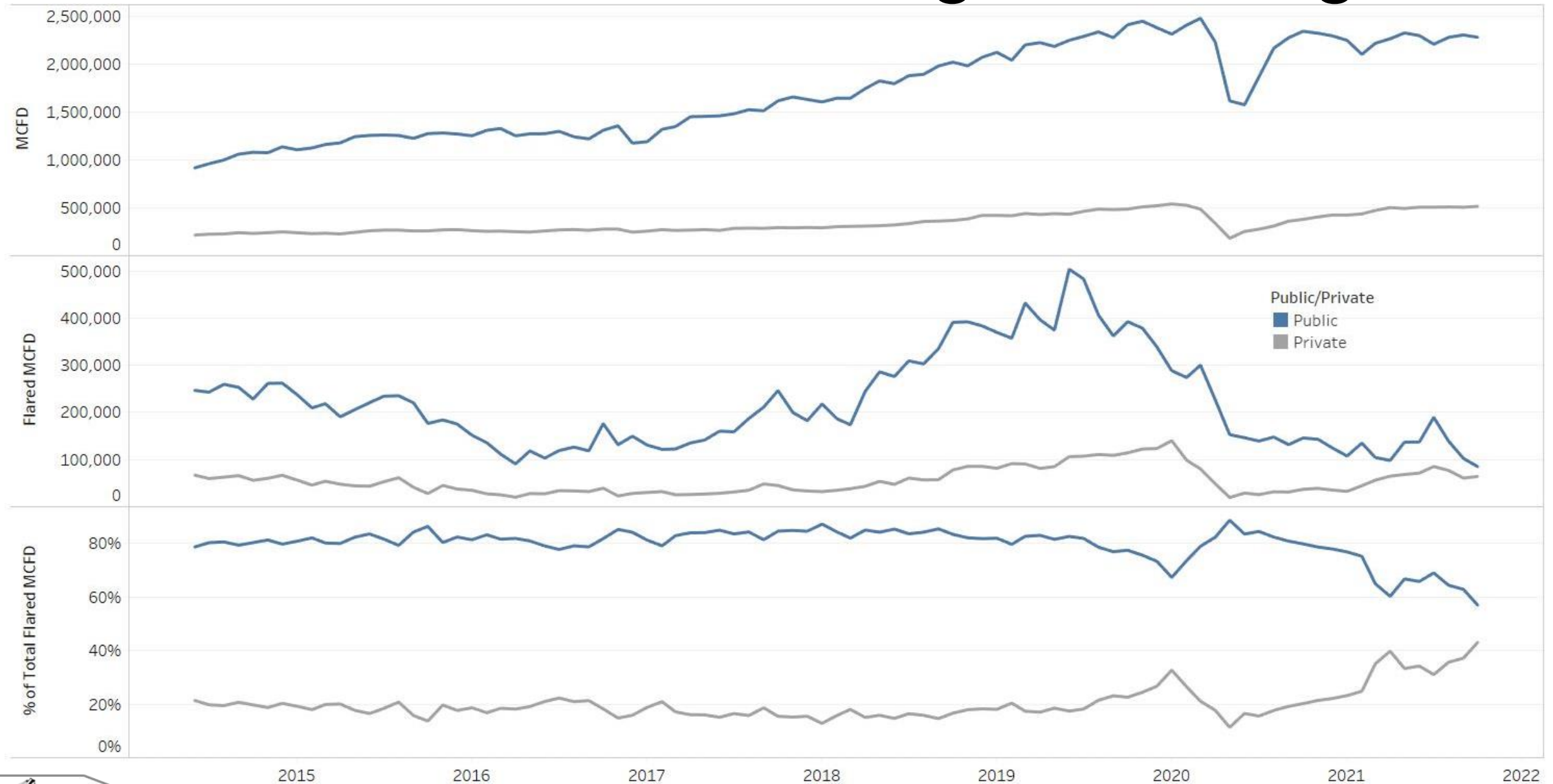
Solving the Flaring Challenge



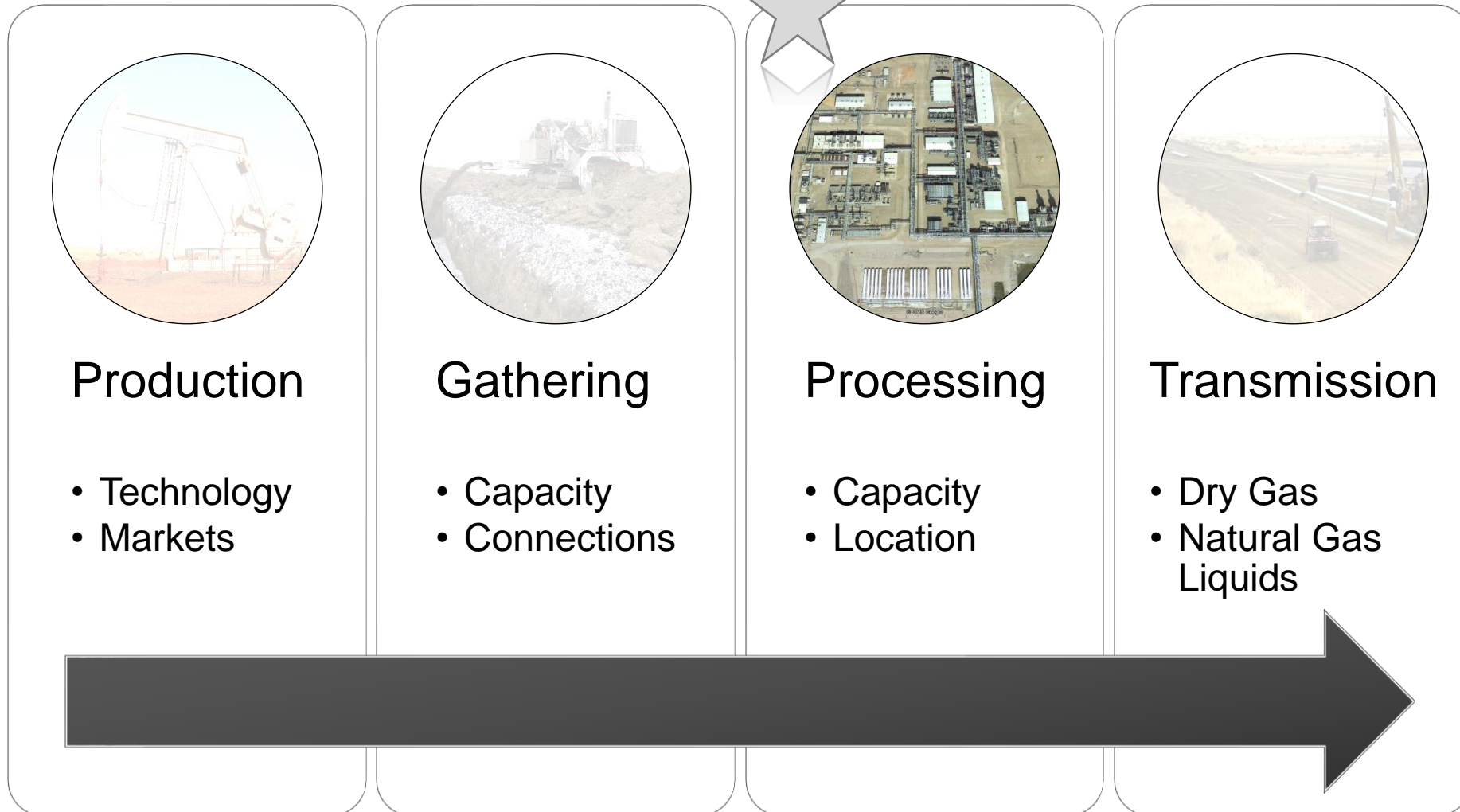
Shifting Early Production Strategies



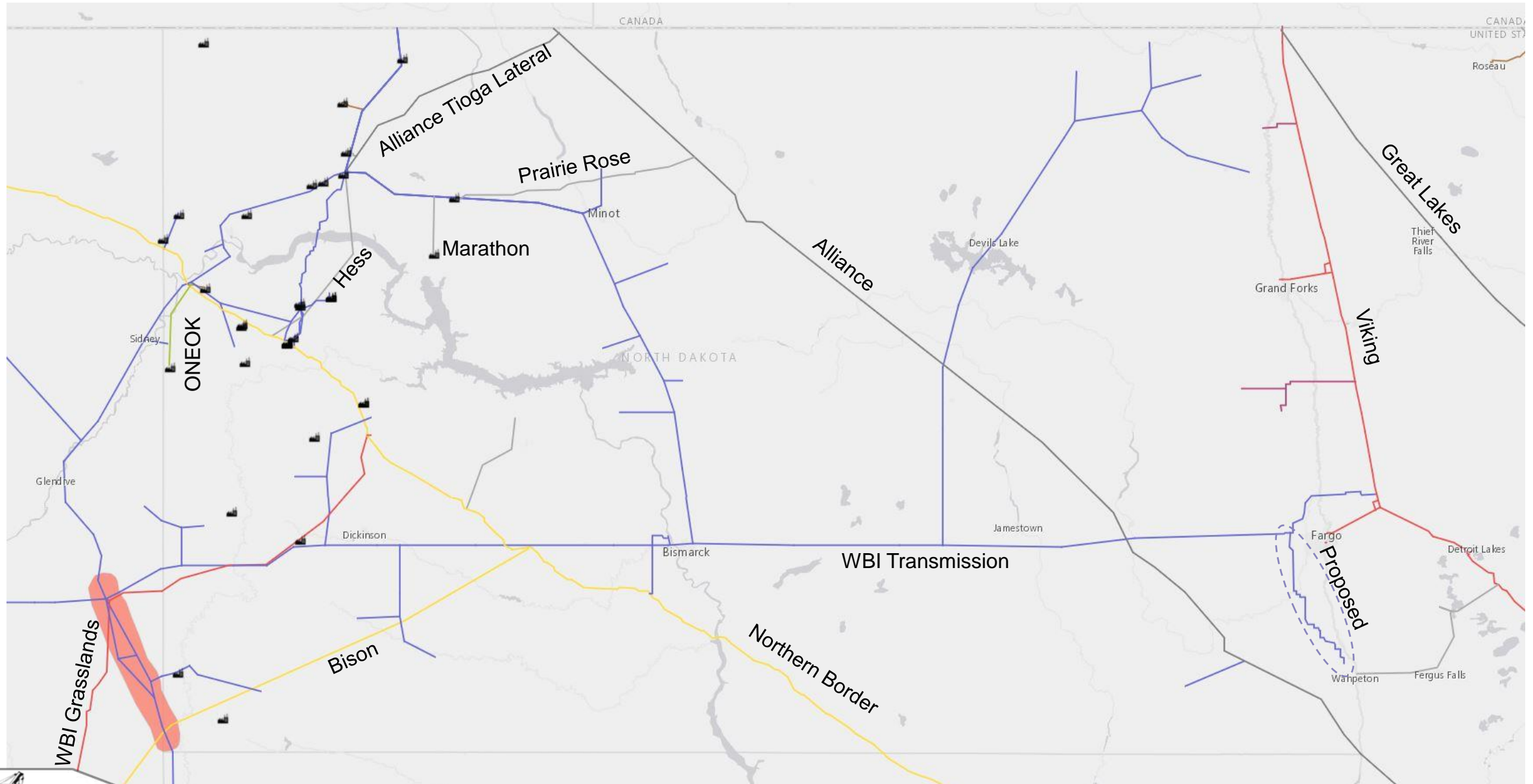
Public/Private Flaring is Shifting



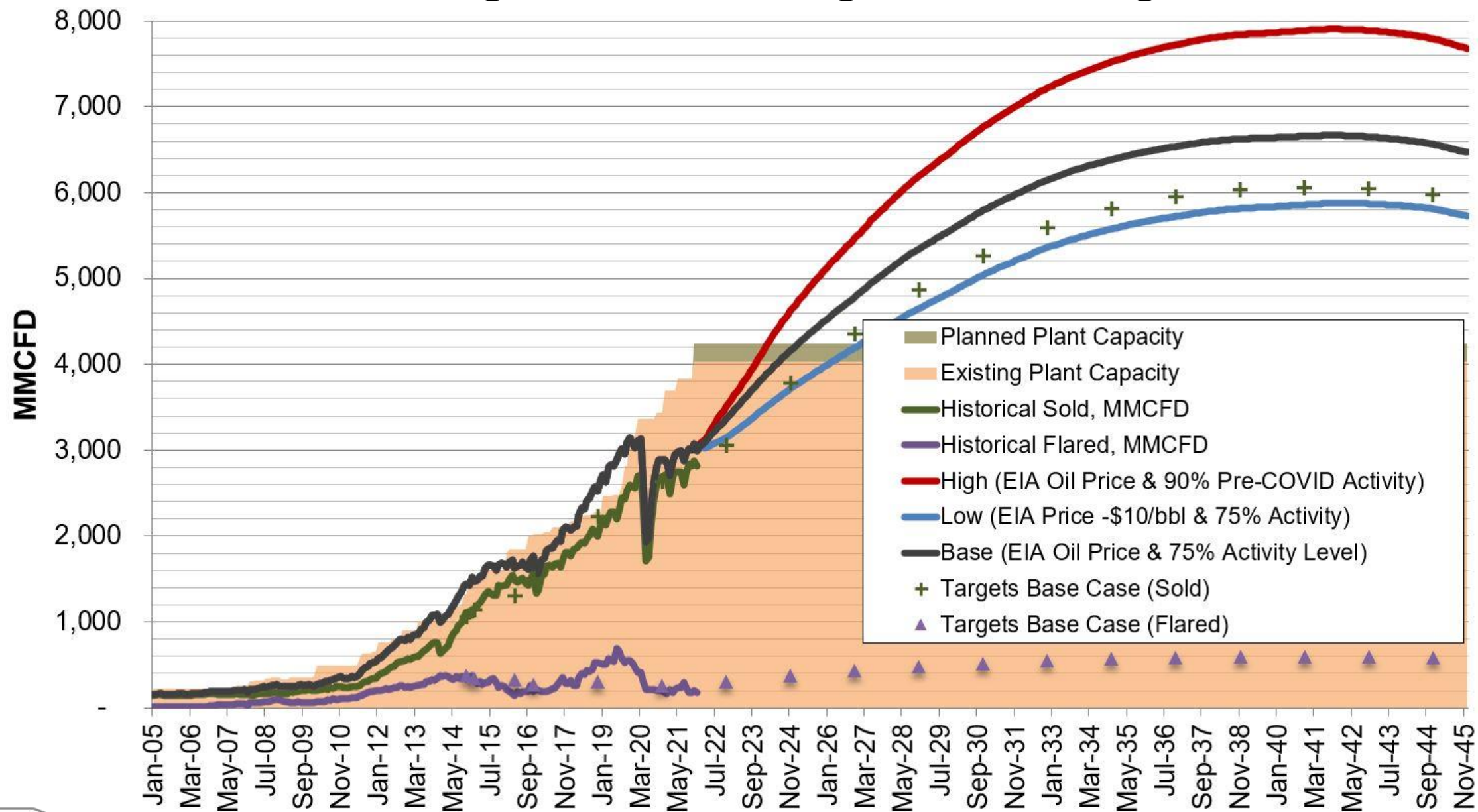
Natural Gas Update



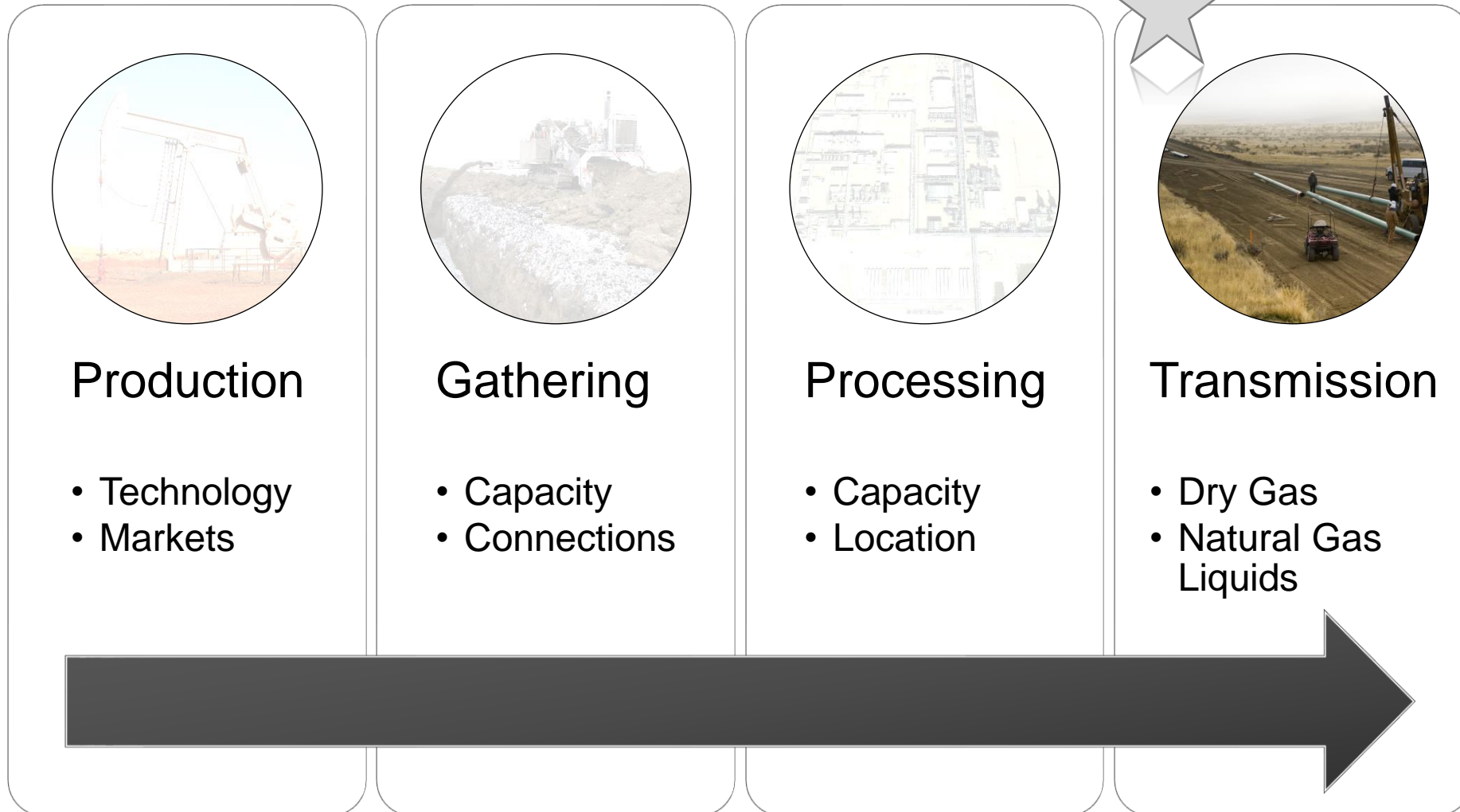
Major Residue Gas Pipeline Infrastructure



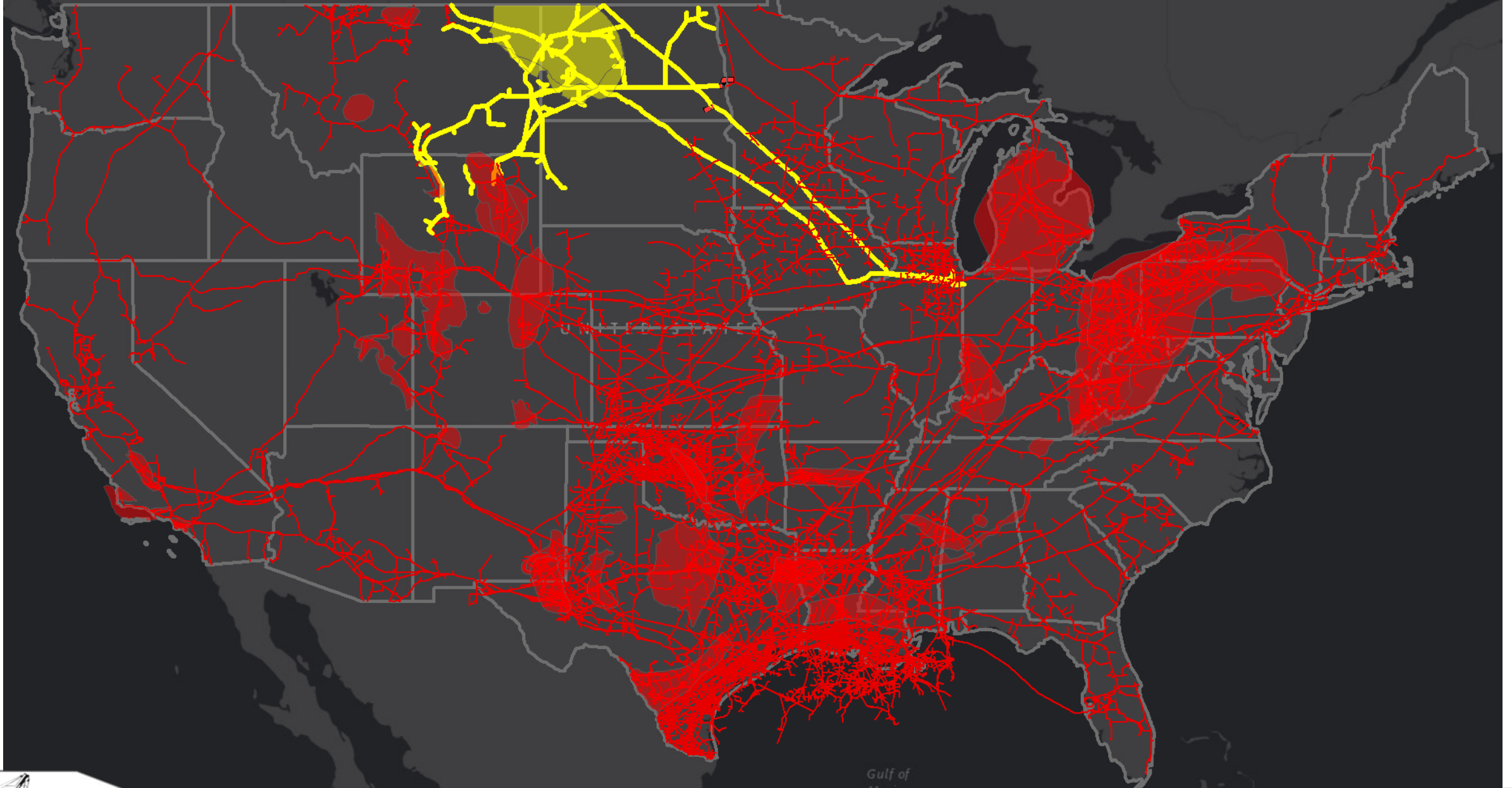
Solving the Flaring Challenge



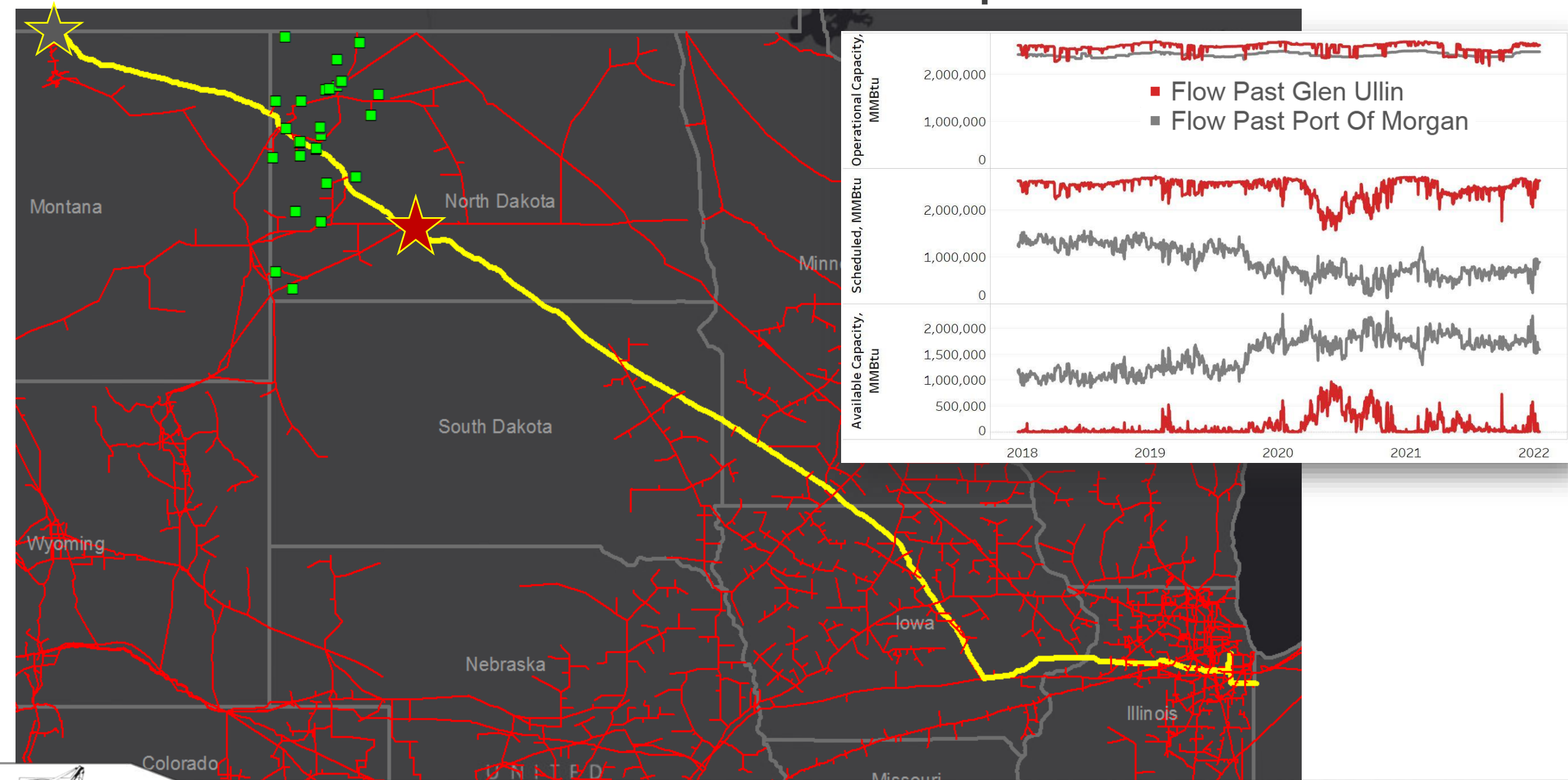
Natural Gas Update



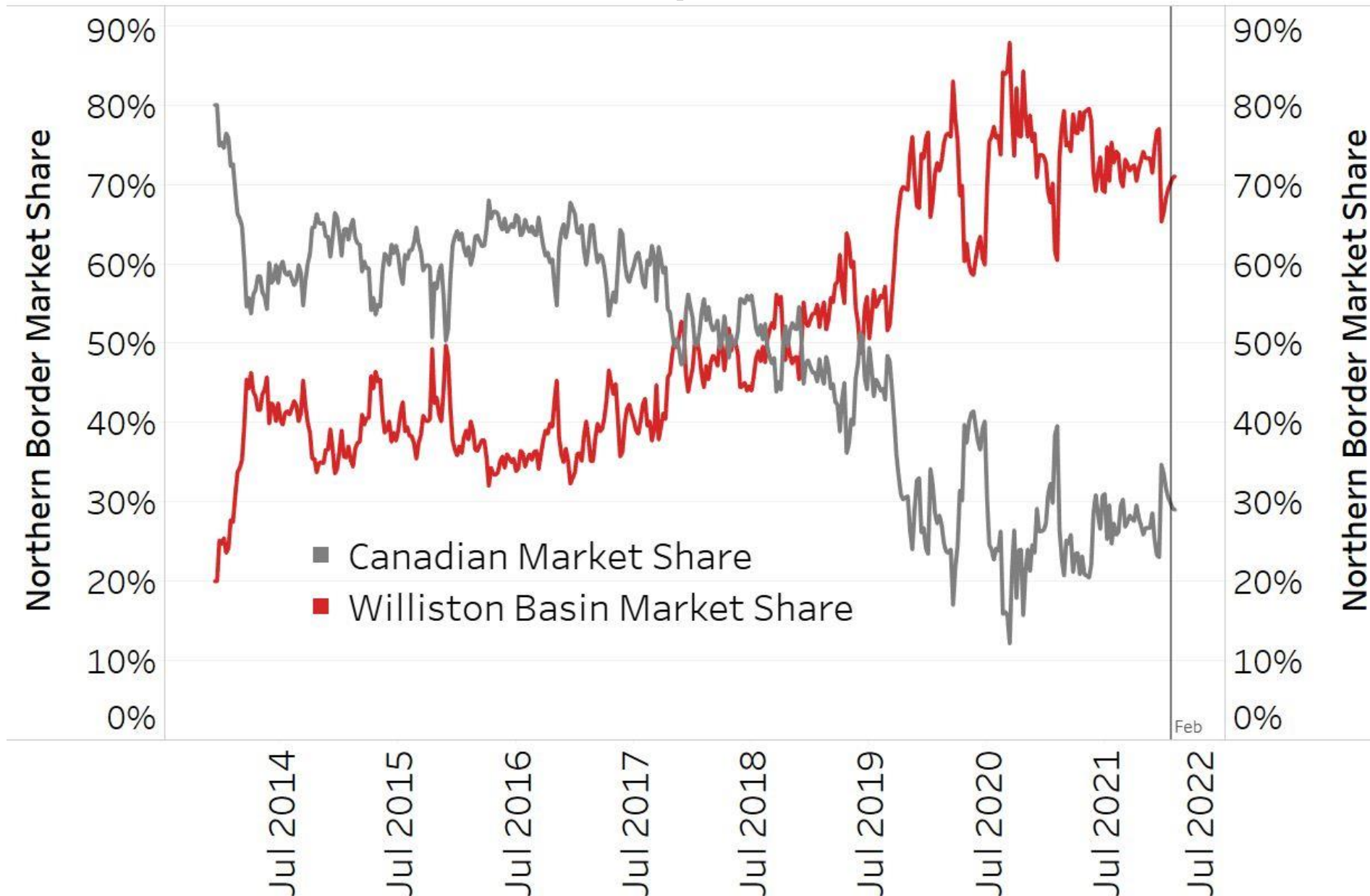
Bakken Natural Gas Infrastructure



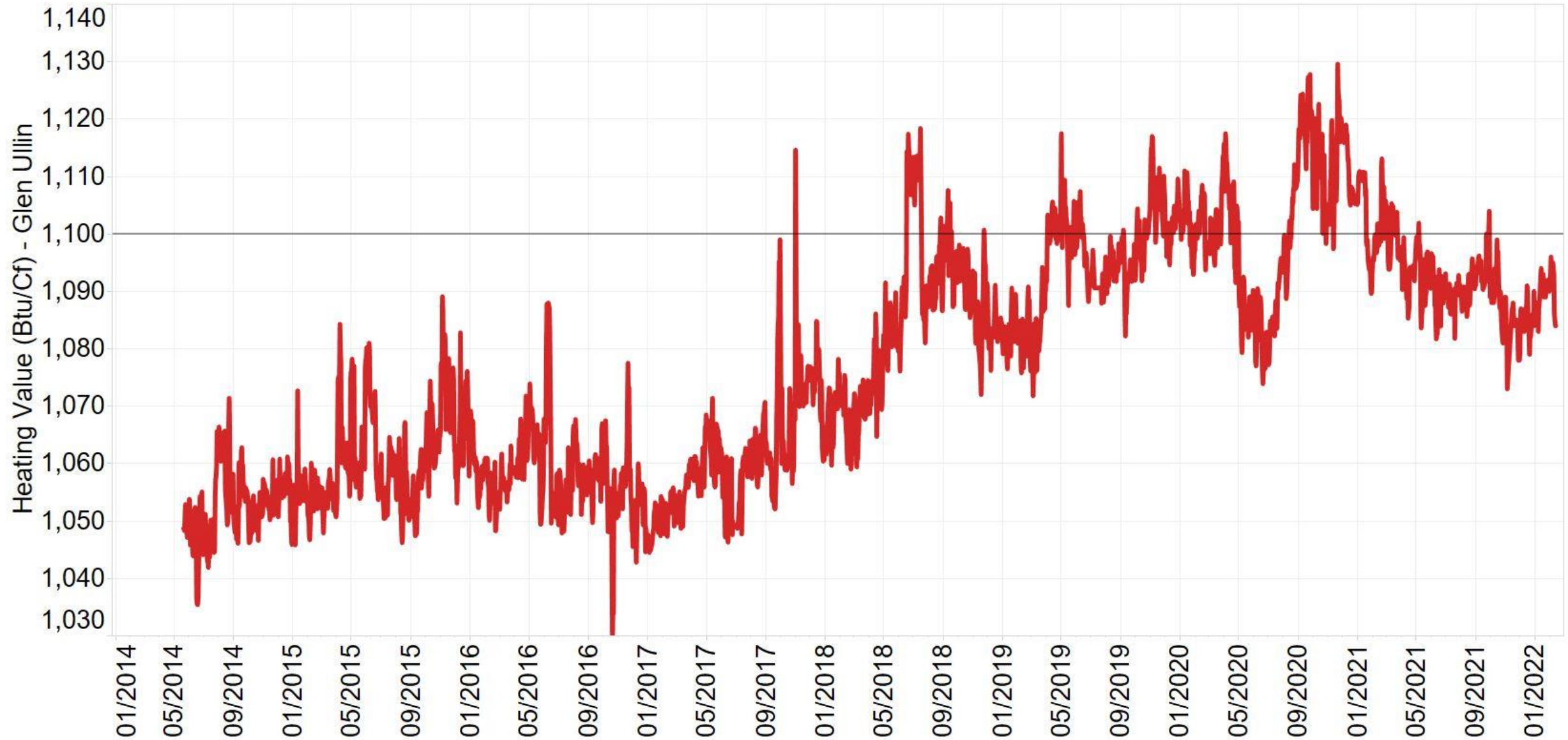
Northern Border Pipeline



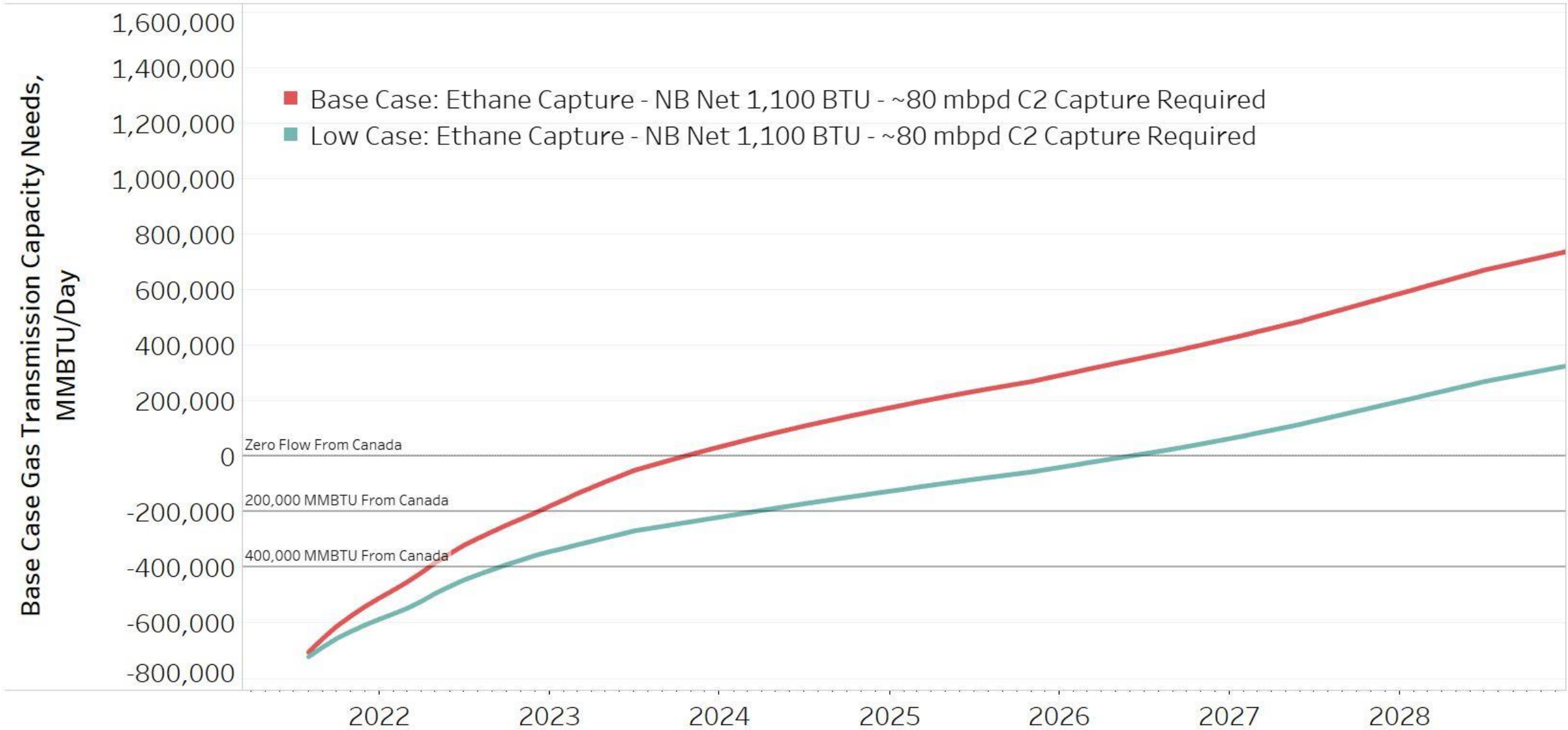
Northern Border Pipeline Market Share



Northern Border BTU at Glen Ullin, ND



Northern Border – BTU Calculations*



NGP – 1.01 Purpose Statement

The Industrial Commission was directed by the Sixty-seventh Legislative Assembly of North Dakota to establish a natural gas pipeline grant program to allow for the transportation of natural gas for utilization in eastern North Dakota thereby expanding the North Dakota economy, increasing employment, stimulating economic activity, augmenting sources of tax revenue, and fostering economic stability.



Legislative Appropriation:

Senate Bill 2345 Section 1, subsection 1

There is appropriated from federal funds derived from the state fiscal recovery fund, not otherwise appropriated, the sum of \$150,000,000, or so much of the sum as may be necessary, to the Industrial Commission for the purpose of pipeline infrastructure grants to allow for the transportation of natural gas to eastern North Dakota for the period beginning December 1, 2021 and ending June 30, 2023. Of the funds appropriated in this subsection, at least \$10,000,000 must be used for a project to transport natural gas to areas in Grand Forks County.

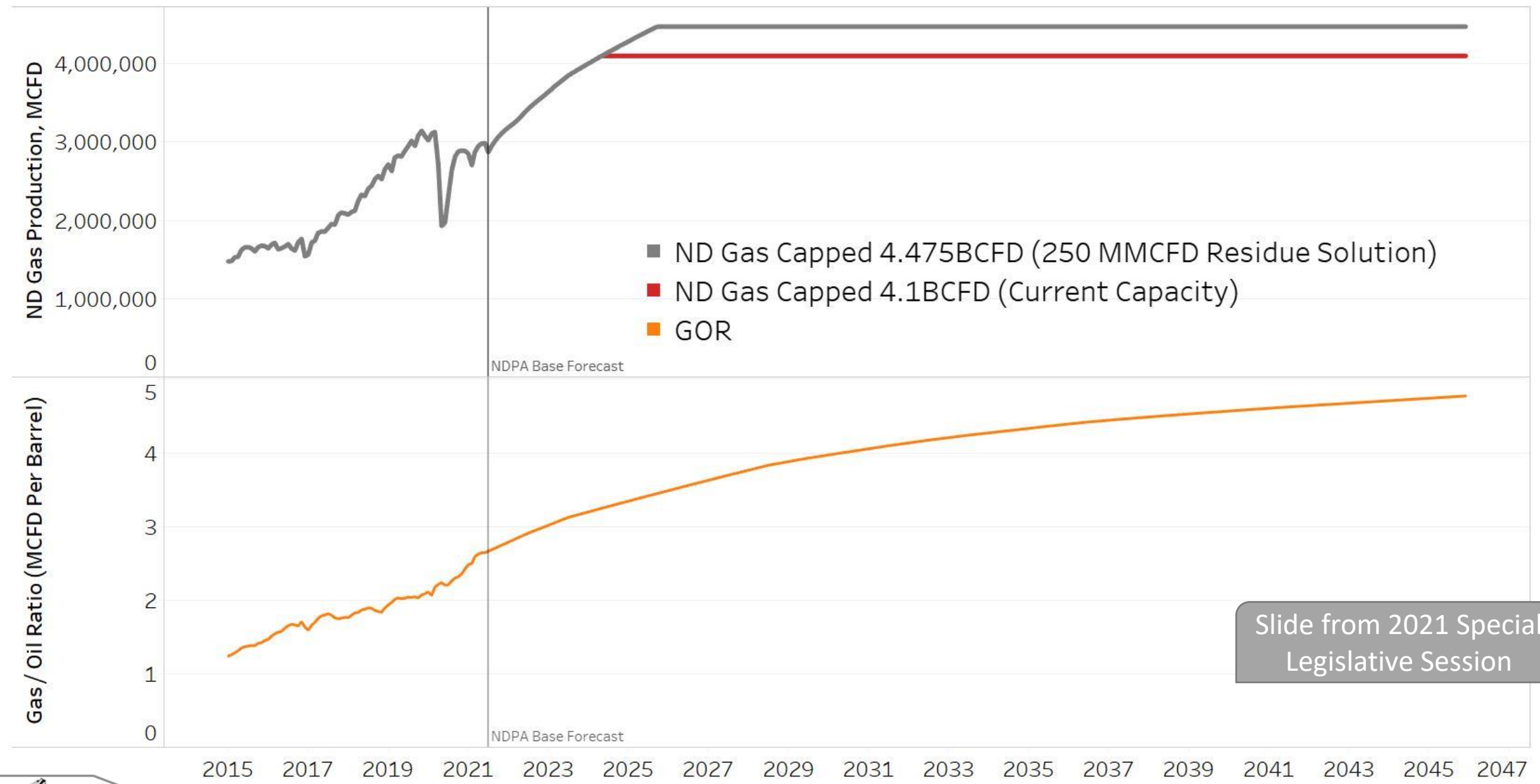


Legislative Intent Statement: Senate Bill 2345 Section 9

It is the intent of the Sixty-seventh Legislative Assembly that the Sixty-Eighth Legislative Assembly consider providing additional funding for continuing the development of high-pressure transmission pipeline infrastructure for the transportation and competitive selling of natural gas to eastern North Dakota.



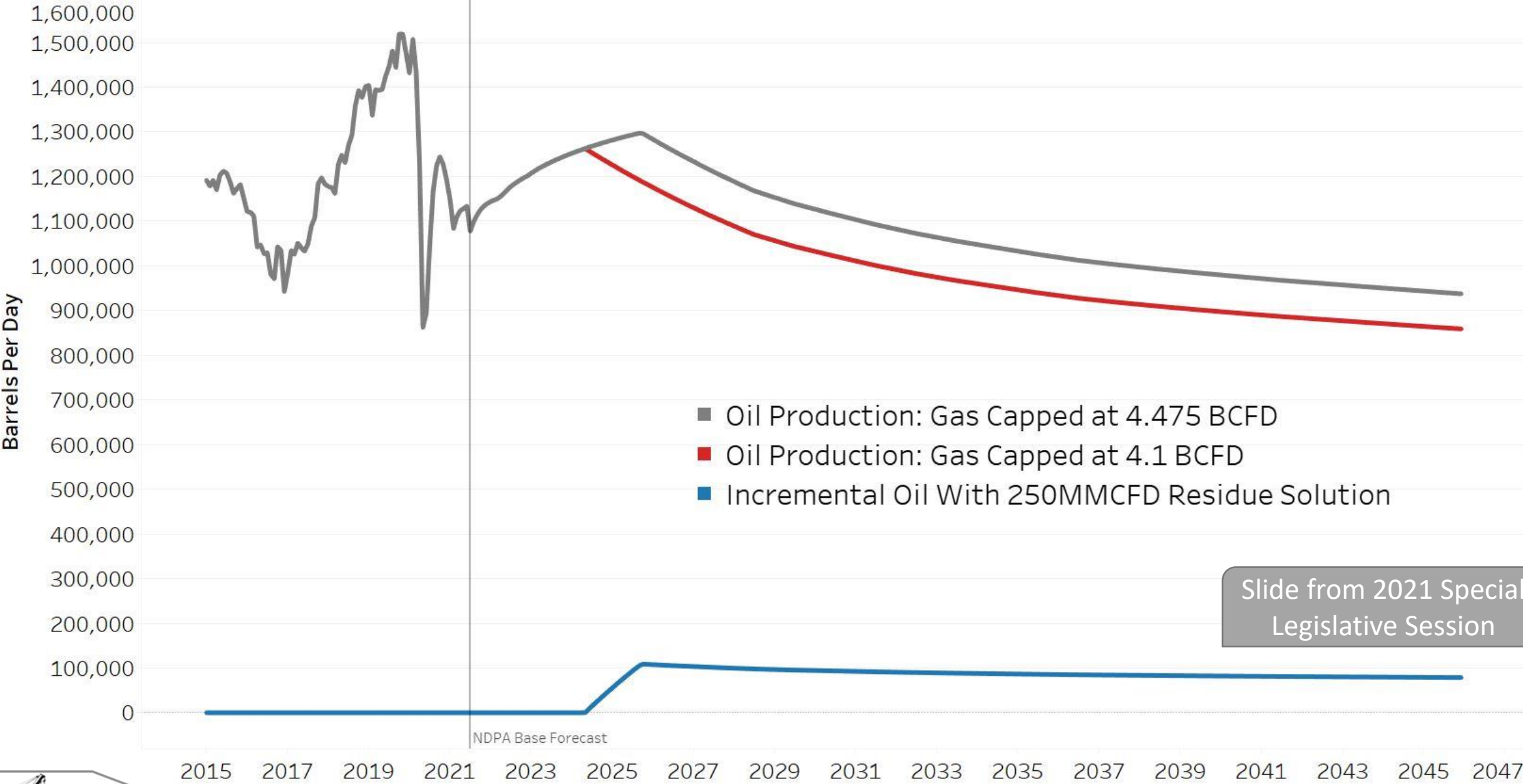
Gas Transmission Expected to Limit Oil Production



Slide from 2021 Special
Legislative Session



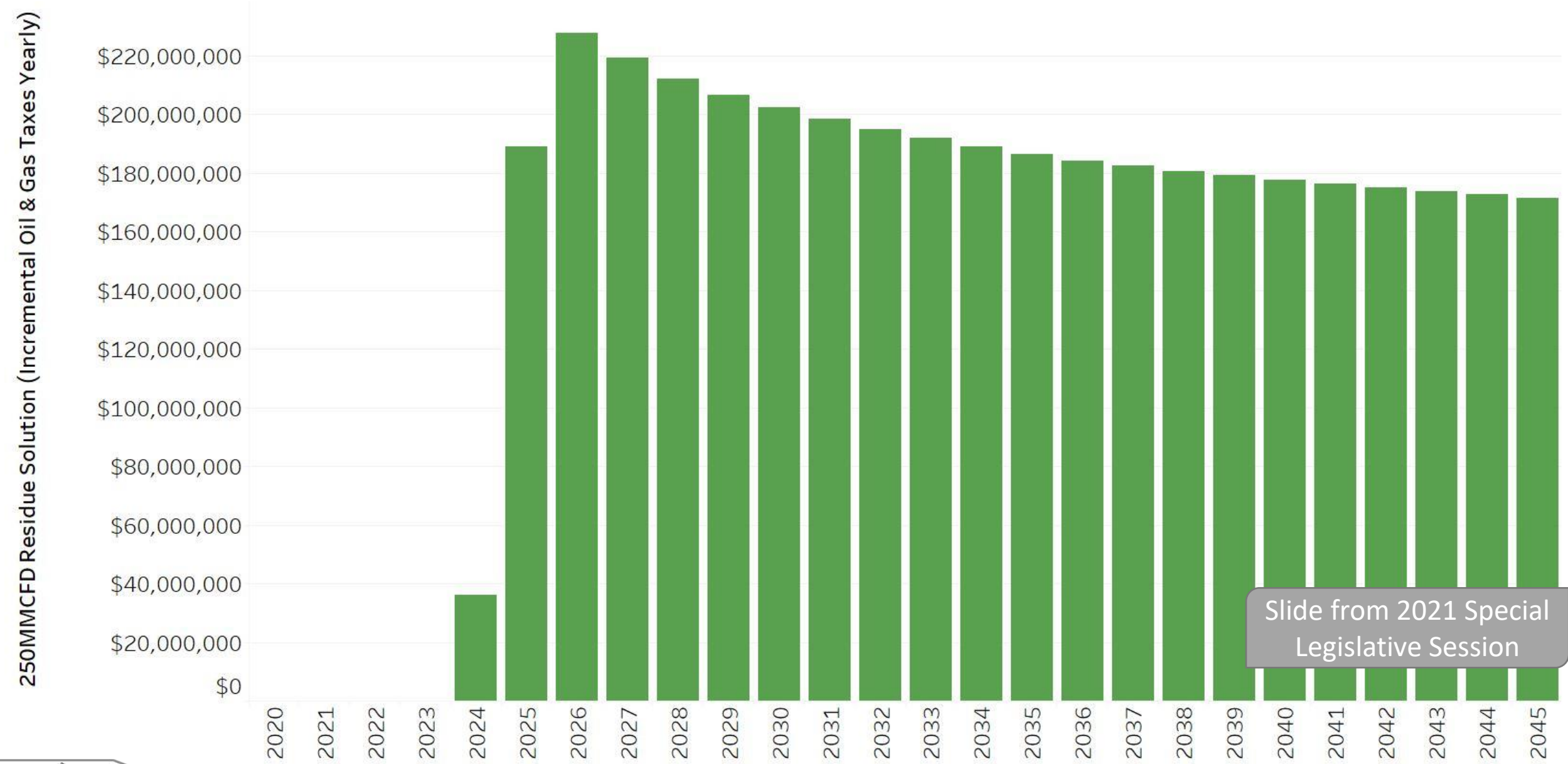
Gas Transmission Expected to Limit Oil Production



Slide from 2021 Special
Legislative Session



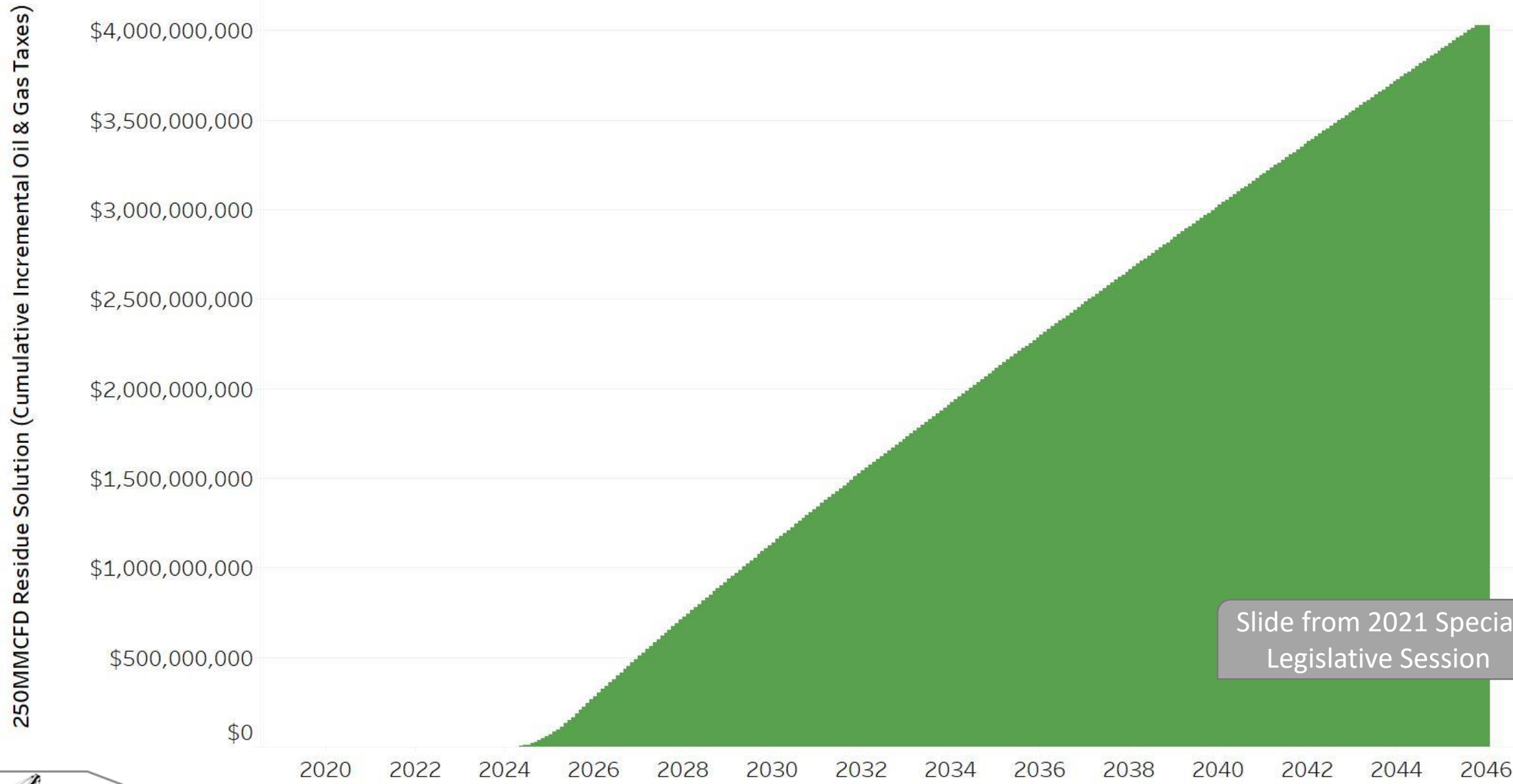
Incremental Oil & Gas Taxes*: 250 MMCFD Residue Gas Solution



Slide from 2021 Special
Legislative Session



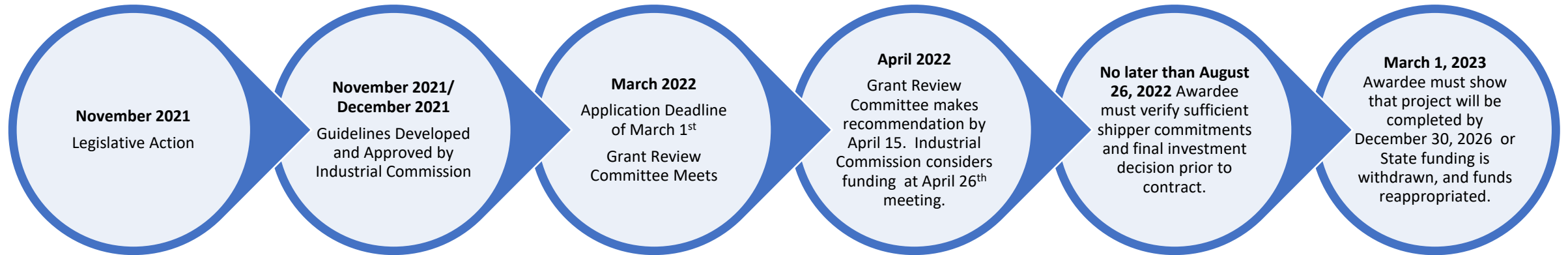
Incremental Oil & Gas Taxes*: 250 MMCFD Residue Gas Solution



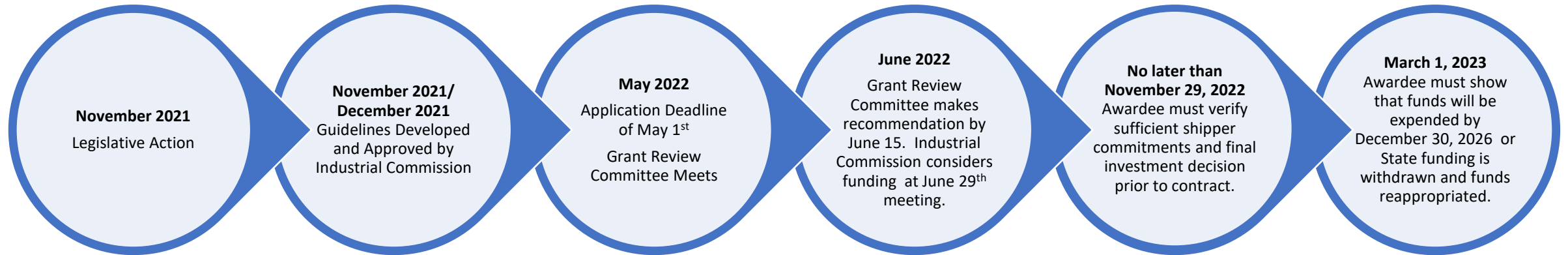
Slide from 2021 Special
Legislative Session



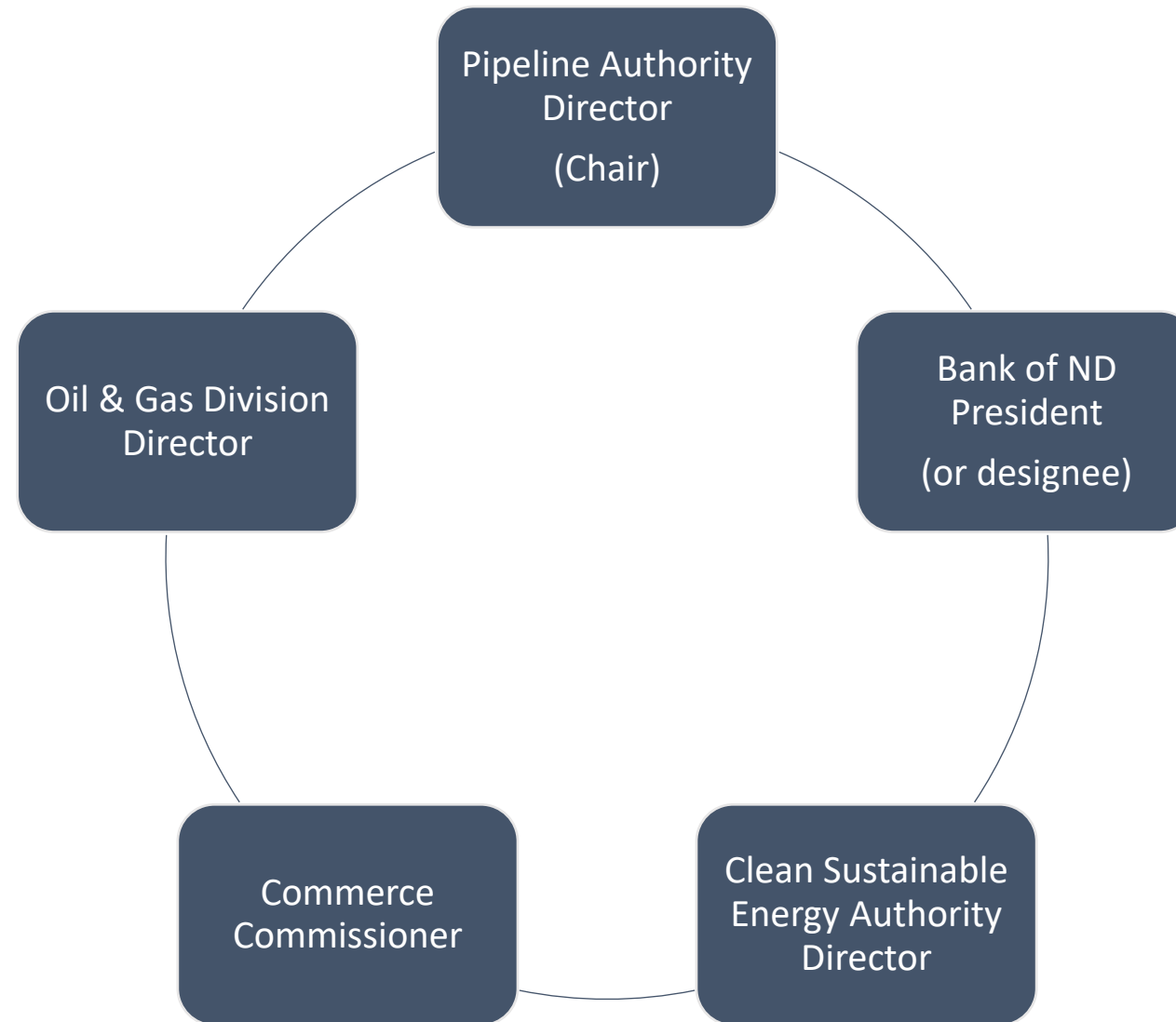
Timeline for \$10 Million: Grand Forks County



Timeline for \$140 Million



Application Review Committee



NGP – 1.02 Definitions

1. *“Commission” means the North Dakota Industrial Commission.*
2. *“Natural gas” means residue natural gas for end use consumption.*
3. *“Natural Gas Pipeline Grant Program” or “NGP Program” means a grant program to expand the North Dakota economy by facilitating the development of pipeline facilities to support the transportation of natural gas for utilization in eastern North Dakota, thereby increasing employment, stimulating economic activity, augmenting sources of tax revenue, fostering economic stability, and improving the state's economy.*
4. *“Natural Gas Pipeline Grant Review Committee” or “Review Committee” means the Department of Mineral Resources Director, Pipeline Authority Director, Bank of North Dakota President or his designee, Clean Sustainable Energy Authority Director, Department of Commerce Commissioner. The Pipeline Authority Director shall serve as Chair of the Review Committee.*
5. *“Pipeline facilities” means pipelines, pumps, compressors, storage, and all other facilities, structures, and properties incidental and necessary or useful in the interconnection of high-pressure pipelines or the transportation of natural gas commodities to points of transfer located within and outside the state. “Pipeline facilities” do not include local distribution infrastructure.*
6. *“Transportation Rate Buy Down” means all grant funding shall be used exclusively for the purpose of offsetting project capital expenditures resulting in a lower natural gas transportation rate while not increasing the rate of return on equity for the recipient.*



NGP – 2.02 Eligibility Criteria

- 1. Be recommended by the Natural Gas Pipeline Grant Review Committee.*
- 2. Upon grant award approval, the recipient must demonstrate within five months that sufficient shipper commitments on the pipeline have been obtained.*
- 3. Have a minimum 60% private sector funding.*
- 4. Achieve the priorities and purposes of the NGP Program.*
- 5. Operate as a common carrier pipeline.*
- 6. Certify funds be used exclusively to lower or “buy down” the transport rate through a fixed return on equity basis.*



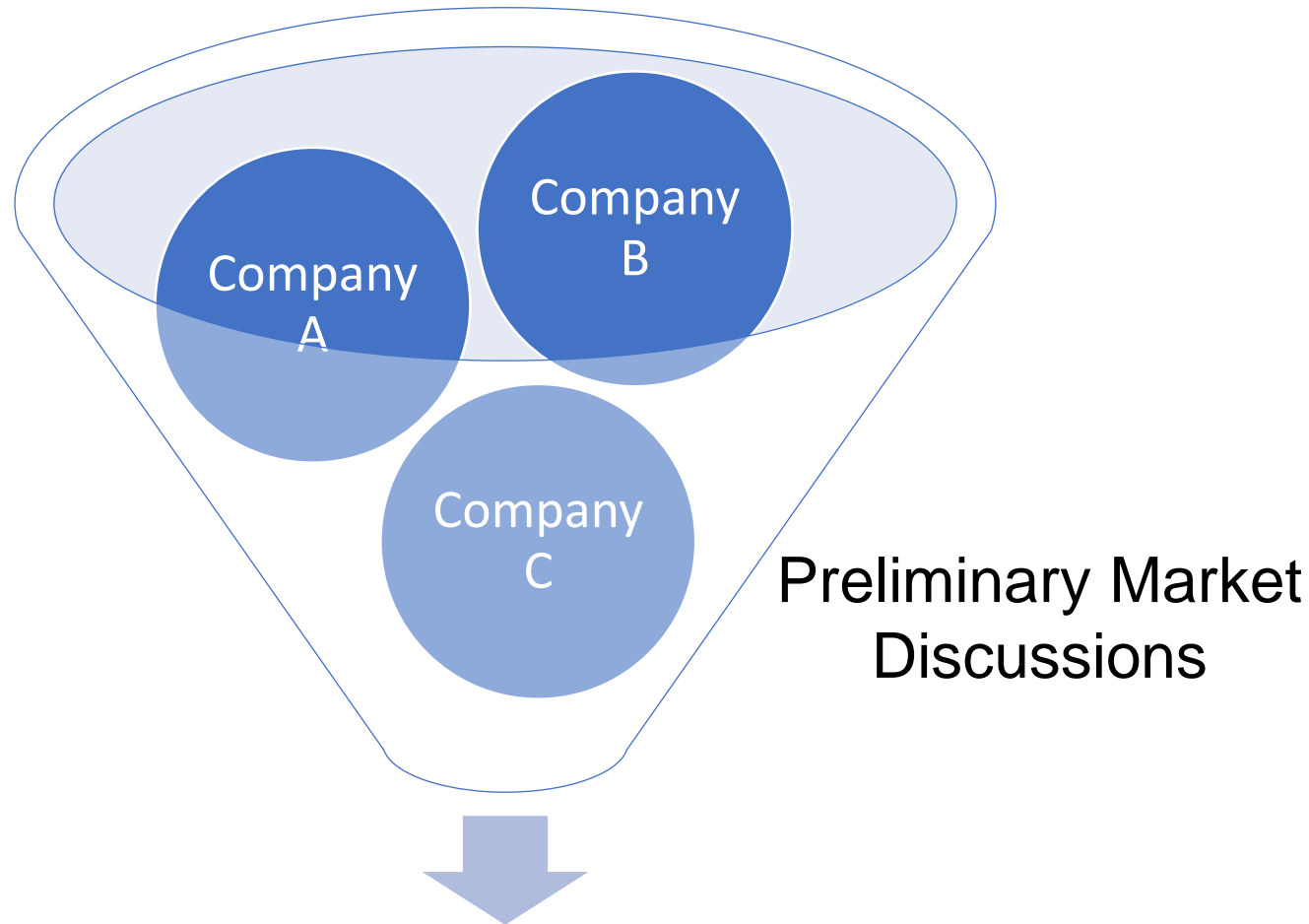
NGP – 4.01 Application Evaluation – Criteria

- ***Degree to which the application meets the Program objectives:***
 - *Expanding the North Dakota economy by facilitating the development of pipeline facilities to support the transportation of natural gas for utilization in eastern North Dakota.*
 - *Increasing employment.*
 - *Stimulating economic activity.*
 - *Augmenting sources of tax revenue.*
 - *Fostering economic stability.*
- ***Priority will be given to applications that:***
 - *Clearly define how grant funds will lower or “buy down” the transport rate through a fixed return on equity basis.*
 - *Have a higher proposed match ratio.*
 - *Have a higher level of potential customer support.*



Marketplace is Expected to Naturally Narrow Applicants

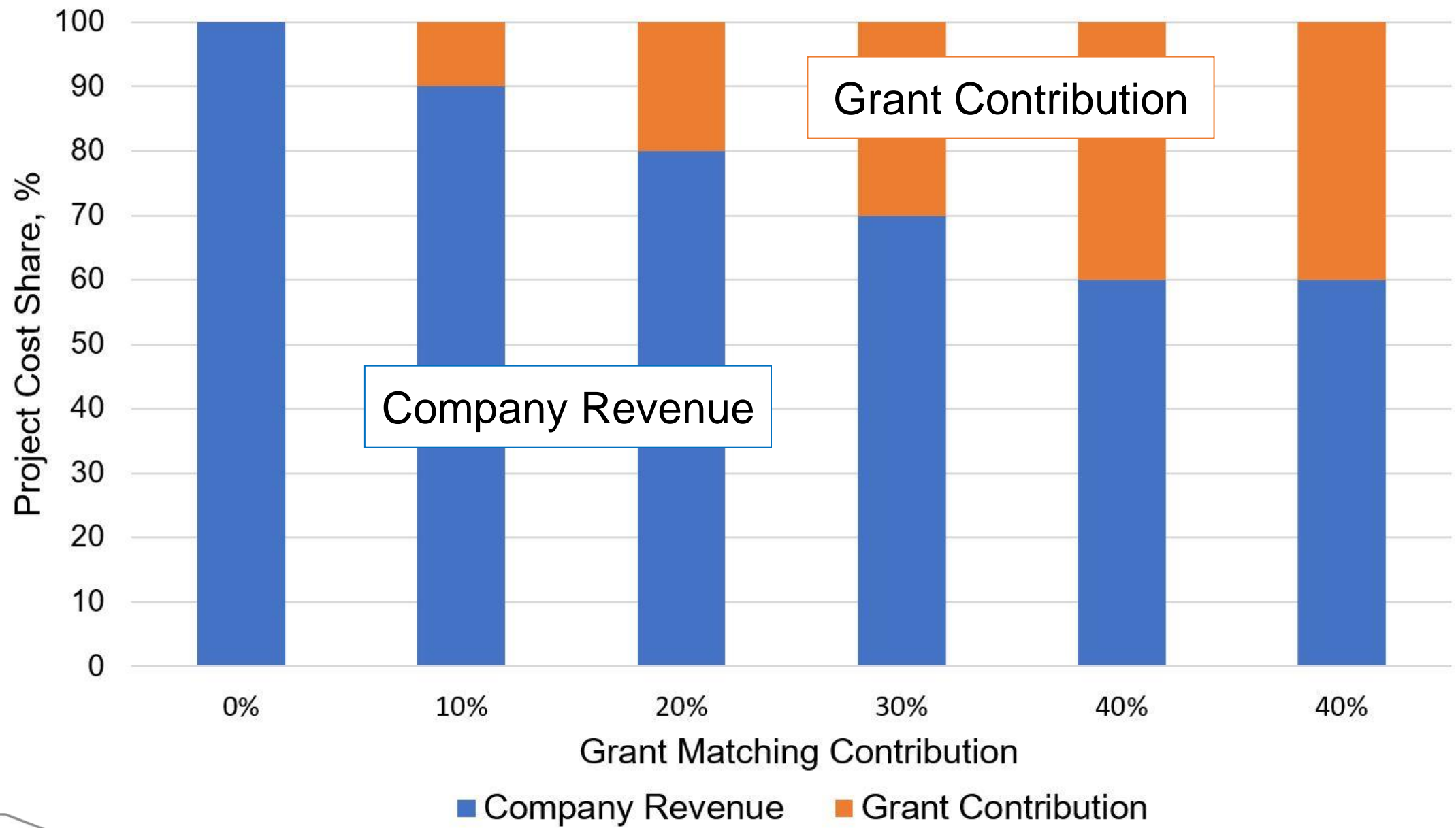
Multiple Companies
Approaching Potential
Customers



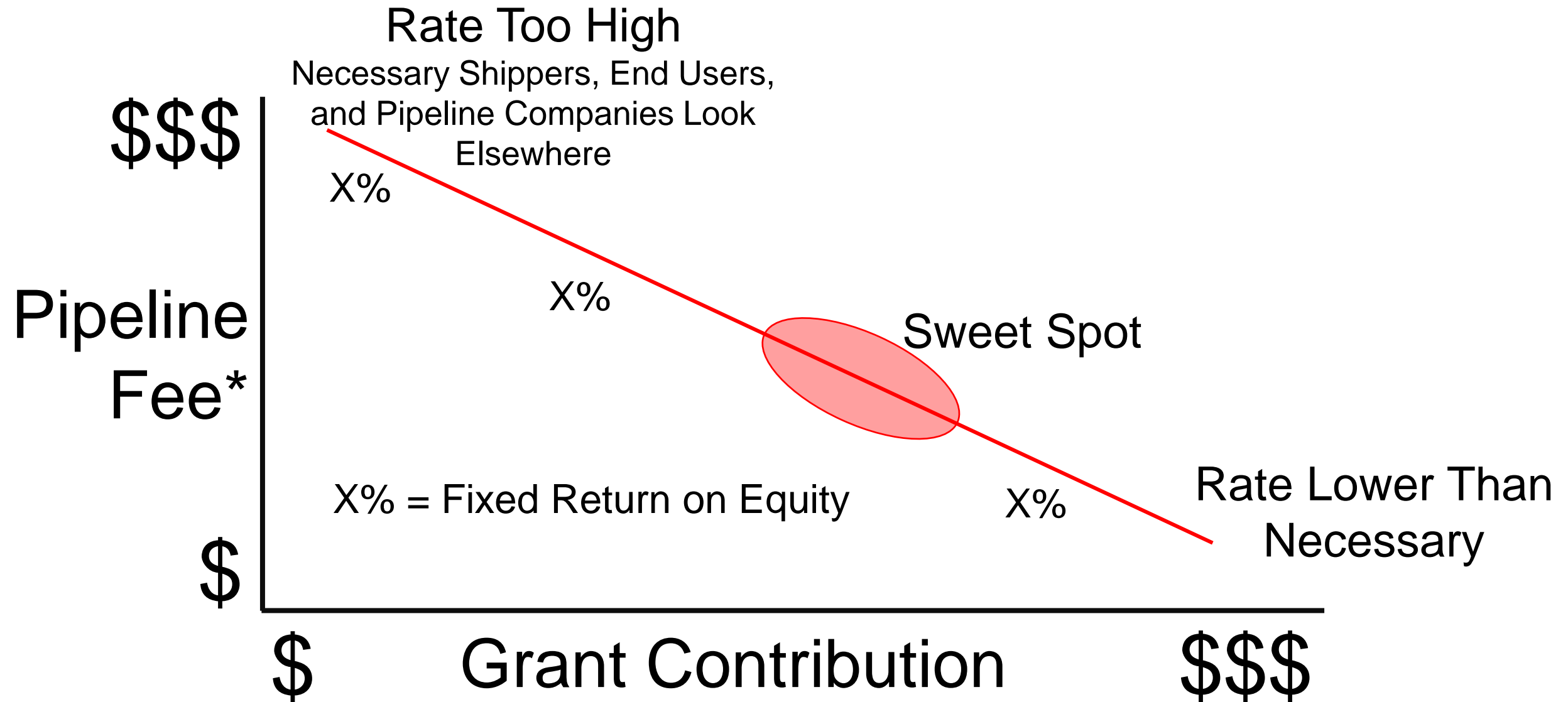
Applicants to NGPGP



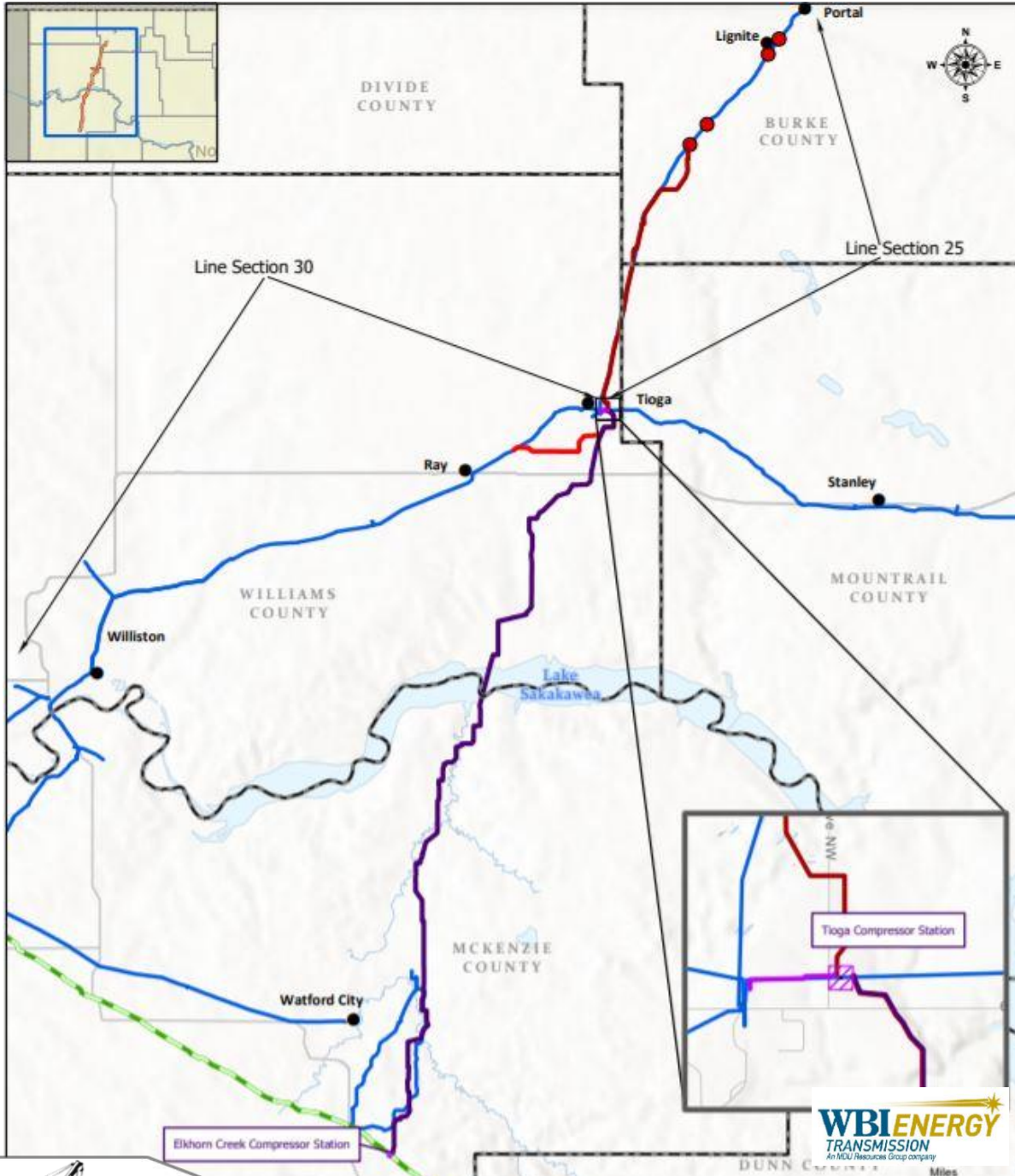
Company Revenue* and Grant Contribution



Grant Contribution Vs. Transport Fee



WBI Energy – North Bakken Expansion Project



Project Highlights

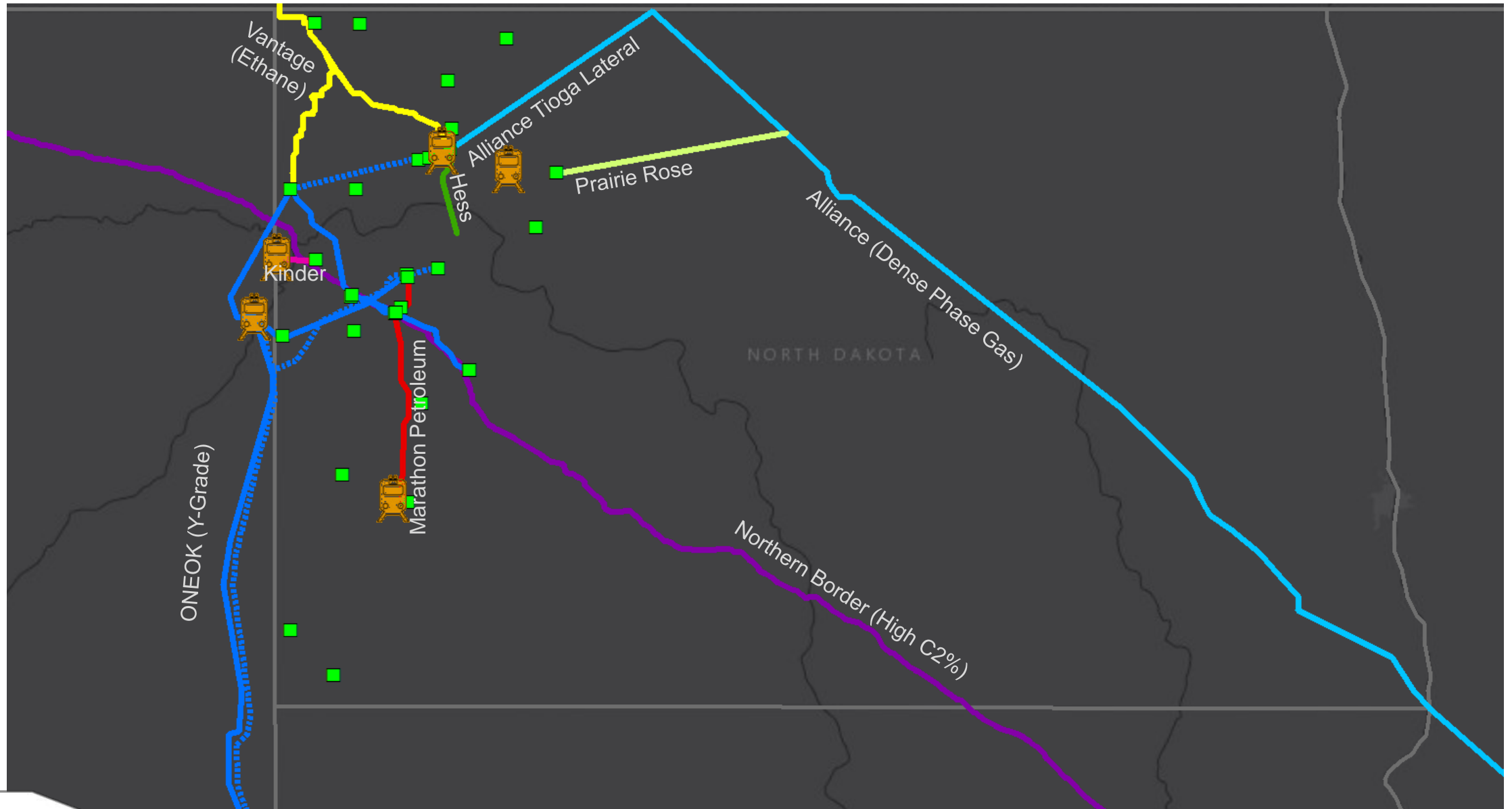
- ~60 Miles - 24" Pipeline
- ~30 Miles - 12" Pipeline
- \$260+ Million
- Preliminary Capacity 250,000 MCFD
- Expandable to 600,000 MCFD
- Q4 2021 Proposed Completion
- Residue Gas Service From North of Lake Sakakawea to Northern Border Pipeline in McKenzie County



Hydrogen/Residue Gas Blending

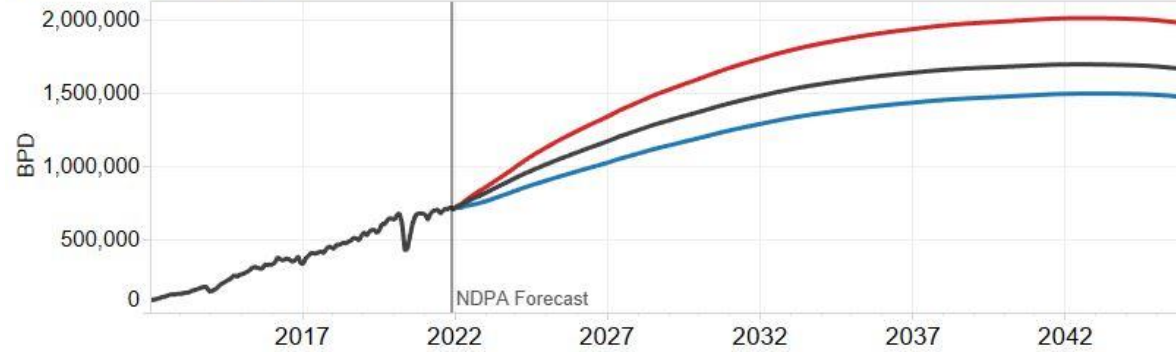


Regional NGL Infrastructure

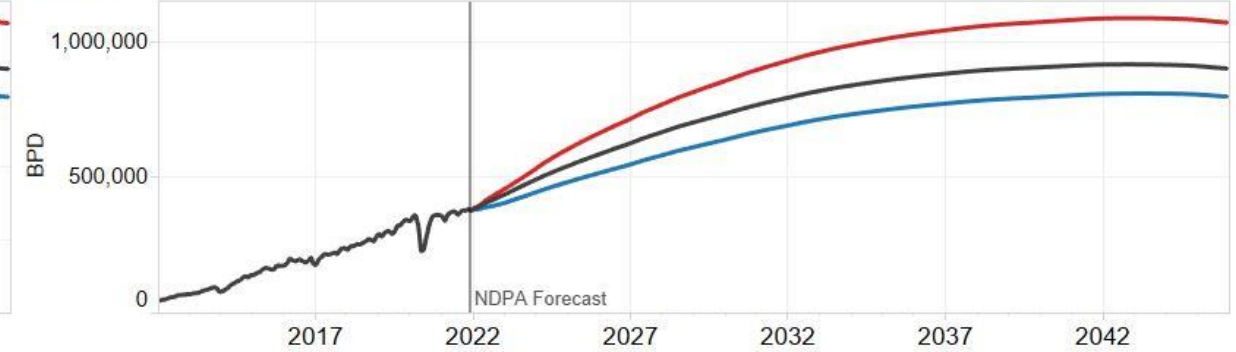


North Dakota Captured* NGL's

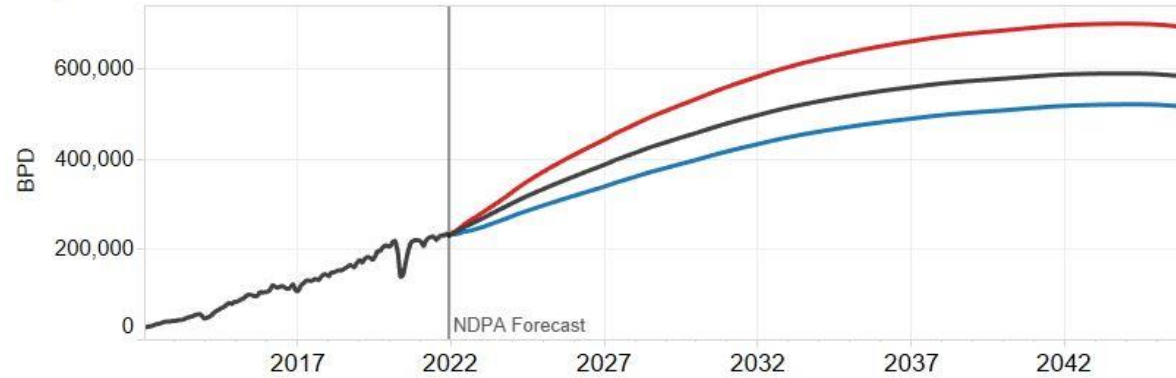
All Natural Gas Liquids



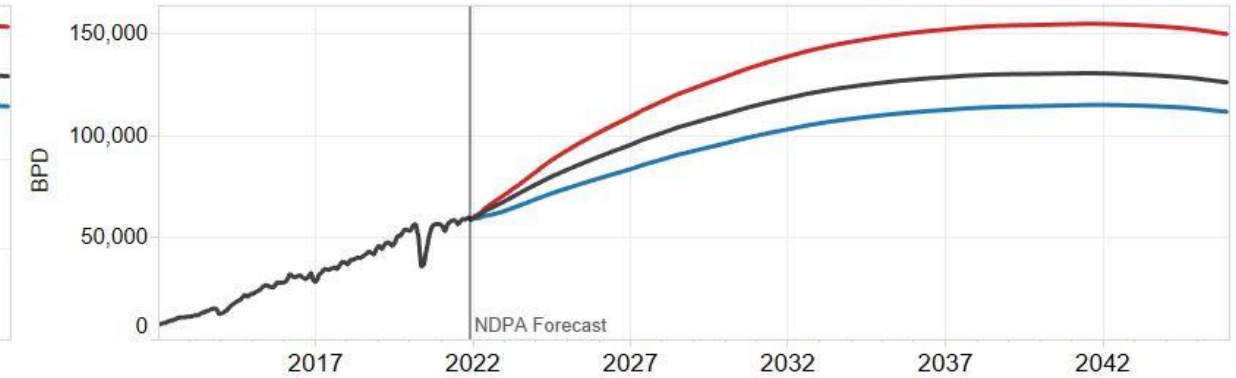
Ethane



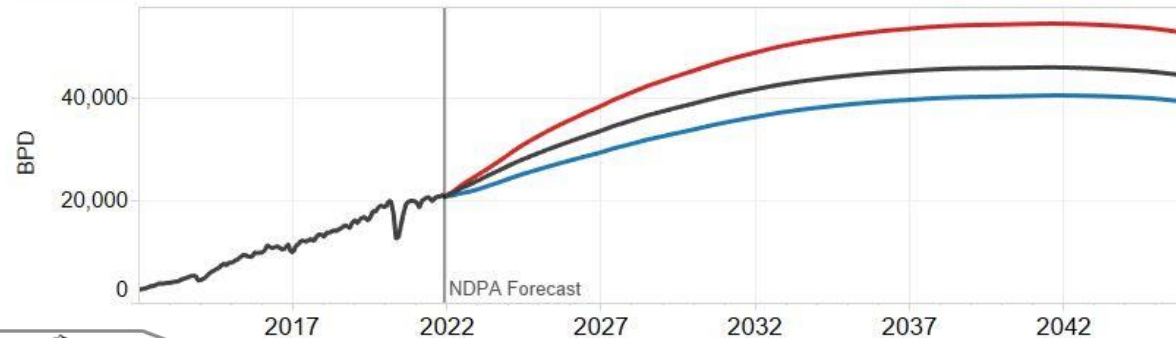
Propane



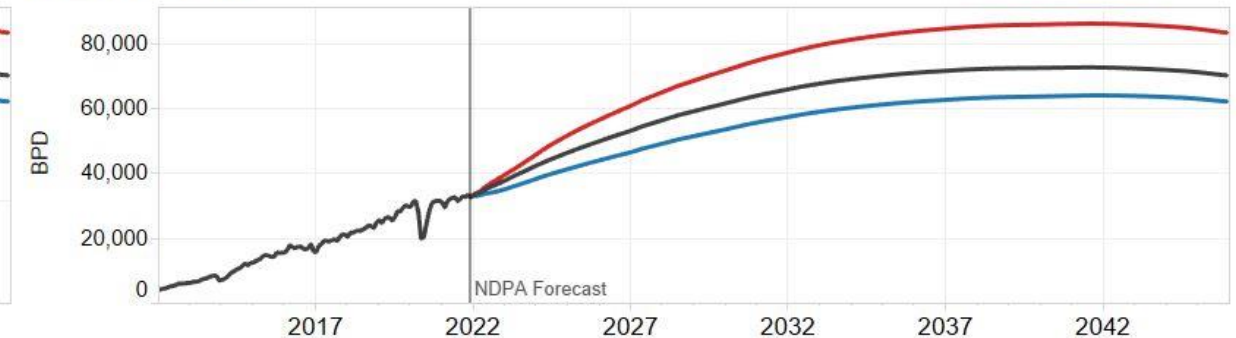
Butane



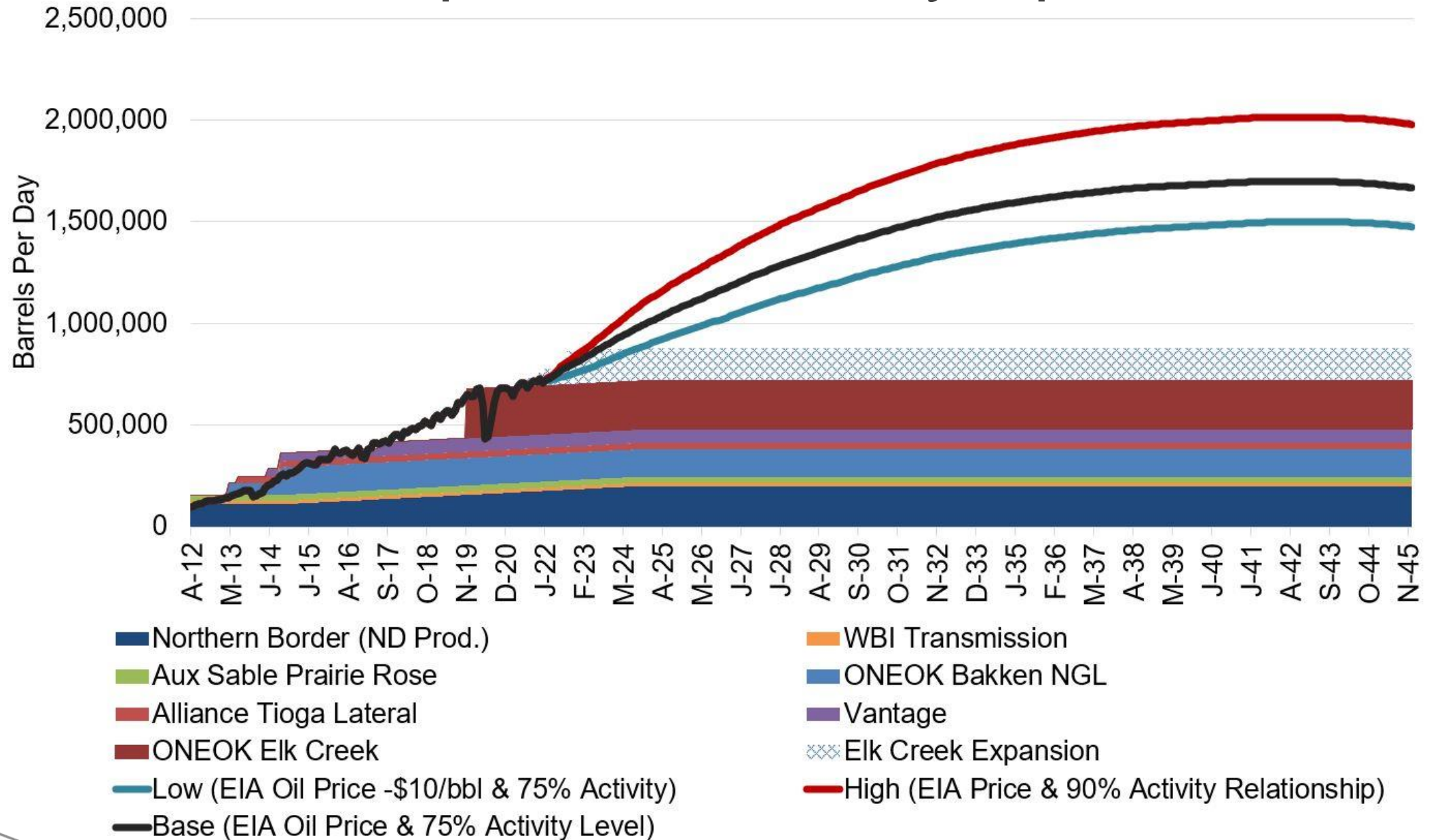
Isobutane



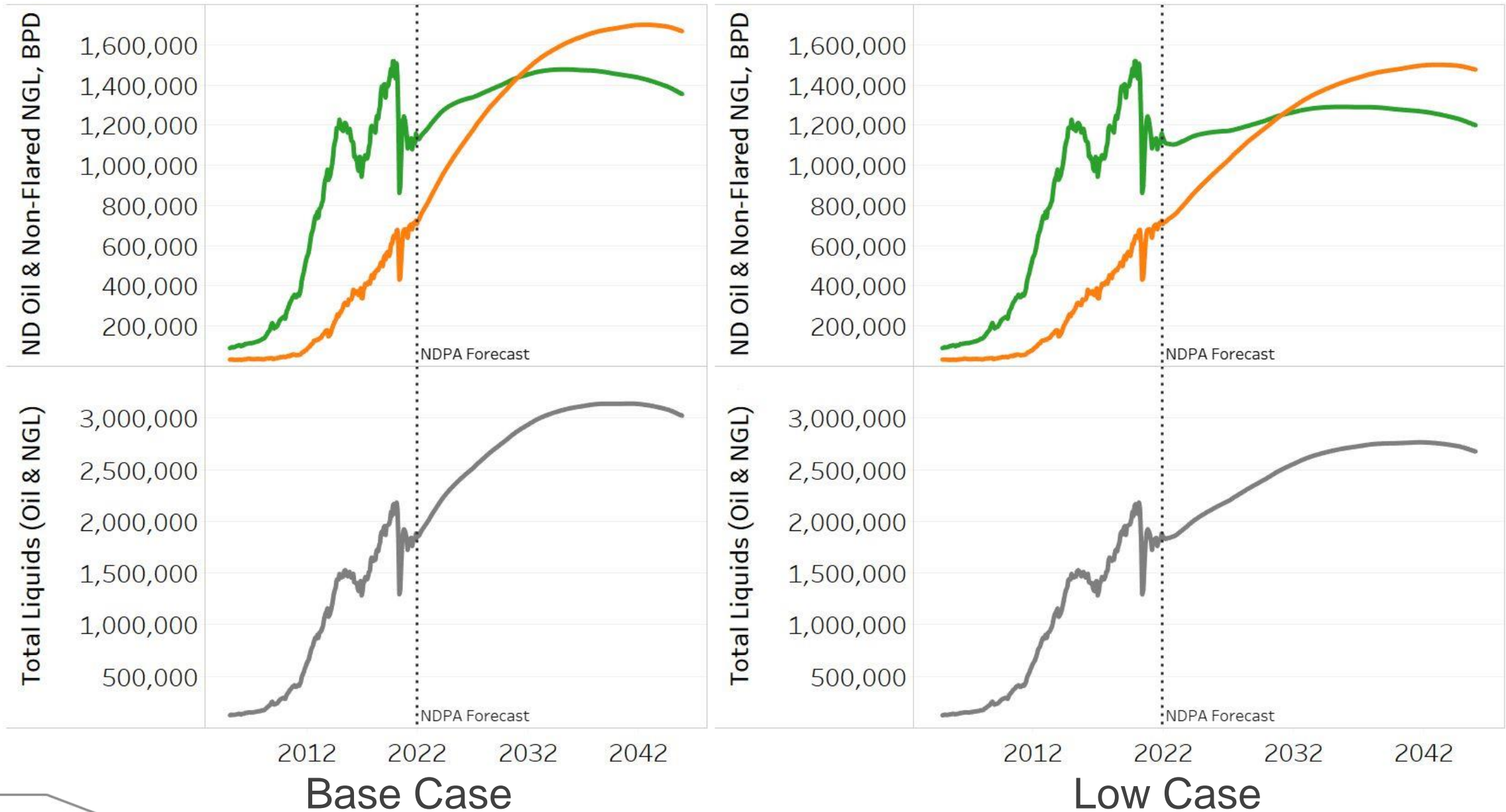
Natural Gasoline



NGL Pipeline Takeaway Options



Total Liquids Production (Oil & Non-flared NGL)



Contact Information

Justin J. Kringstad, Director
North Dakota Pipeline Authority

600 E. Boulevard Ave. Dept. 405
Bismarck, ND 58505-0840

Phone: (701)220-6227
Fax: (701)328-2820
E-mail: jjkringstad@ndpipelines.com



**Know what's below.
Call before you dig.**

Websites:

www.pipeline.nd.gov
www.northdakotapipelines.com

